

**REPORT**  
ON THE  
**Public Health Administration of the Punjab**  
DURING THE YEAR 1931

BY  
BREVET-COLONEL C. A. GILL, K.H.S., M.R.C.P. (LOND.), D.P.H., I.M.S.,  
*Director of Public Health, Punjab,*

TOGETHER WITH  
**The Report on Sanitary Works**

BY  
RAI BAHADUR AMAR NATH, NANDA, B.A., M.I.E.

AND  
A SUMMARY OF  
**The Proceedings of the Sanitary Board**  
*During the financial year 1931-32.*



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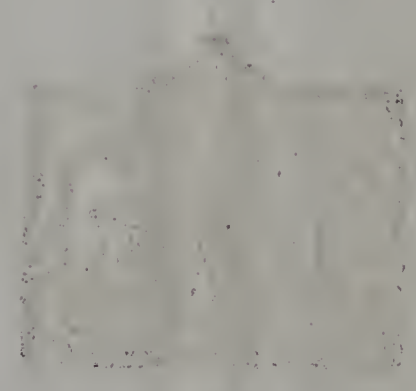
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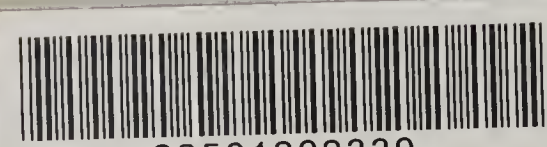
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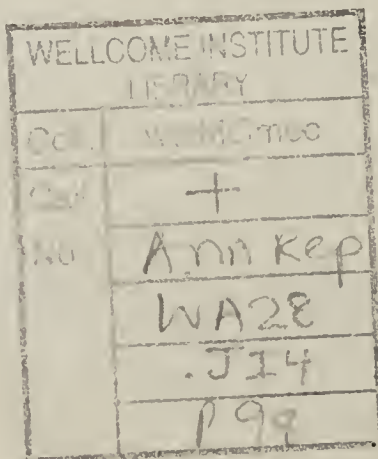
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The text of the Public Health Report is limited to 29 pages and that of the  
Superintending Engineer to VII pages.

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## Corrigendum to the Annual Public Health Report, Punjab, for the year 1931.

1. On page 4. paragraph 3, line 30, against Indian Christians, for 389.149, read 294,203.
2. On page 4, table II. population of Indian Christians of males and females, for 211,782 and 177,367, read 147, 629 and 146, 574 respectively.
3. On page 8. paragraph 12, line 5. for 2.54 read 2.58.
4. On page 9, paragraph 13 (a) line 4, for 29,969 read 19,969 and in line 7 for 7,447 read 6,556 and for 4,425 read 5,316.
5. On page 9, in table VIII against "under one year" for female ratio 189.33 read 189.36 and against 10—15 for female 10.71 read 10.80.
6. On page 10, table No. IX, against under one year Mohammadans male for 237.36 read 211.95.
7. On page 10, table No. IX against total ratio of Christian female for 21.19 read 21.76.
8. On page 10, table No. X against male ratio of Muhammadans for the year 1931 for 237.36 read 211.95.
9. On page 18, paragraph No. 33, line 2, for 1,718,980 read 1,718,983 and in line 4, for 10,102 read 10,099.
10. On page 19, paragraph 33 (1), against District Board Staff, line 3. for 1 634 527 read 1,634,522 and in line 6 for 36,227; read 36,222 and in line 5 for 871,256 read 871,251.
11. On page 19. paragraph 33 (2) Municipal Staff, line 2, for 161,159 read 165,412 and in line 6 for 70,116 read 74,369.
12. On page 20, paragraph 35 line 5 for 97.63 read 97.96.
13. On page 20, paragraph 35, ratio of Primary vaccination against 'Dispensary Staff, for 90.62 read 98.62.
14. On page 20, paragraph 35, ratio of re-vaccination against the Dispensary Staff, for 84.17 read 84.76.
15. Page 3, line 28 read scurvy for scurvey.
16. Appendix VI-A page xv, against Serial No. I—Delhi. under December sub-Column "Dep" read —0.8 for —0.88.
17. Appendix VI-C., page xvii, against Serial No. 11—Multan, under June sub-column A. R. read "0.00" for 0.02.
18. Page 21, paragraph "Income and Expenditure" read Rs. 1,31,40,454 for Rs. 1 31,40,520 and in sub-paragraph read "Rs. 40,72,291" for "Rs. 39,65,821 2 0" and 30 19" for "30 2 per cent." and Rs. 1-10-4 for Rs. 2-2-5.
19. Page 21, in Table XIII against "Water-Supply" read "12,87,068" for "953,896, against 'Plague and other Epidemic Diseases' read "62624" for 62,577" and add the following at the end of the Table :—

*Expenditure in 1930 31.*

	Rs.
(1) Infant Welfare .. .. .	57,681
(2) Licensing of Food shops .. .. .	198
(3) Public Analyst .. .. .	3,519

Against Other Sanitary Equipment add (Miscellaneous) and read '21,042 for nil and '4 072,291' for 3,616,632" in the column of total.

20. Page 22, line 8 read Rs. 2,78,450 for Rs. 2,45,200 and 30.92 for 27.23.

### STATEMENT NO I.

21. Rohtak District column No. 5, sub-column 9 for 4.2 read 24.2.
22. Muzaffargarh district column No. 5, sub-column 9 for 20.0 read 22.0.

### STATEMENT NO. IV.

23. Population column No. 3, sub-column 16 for 433,644 read 443,644.
24. Ratio per 1,000 of population, column No. 3, sub-column 17 for 189.33 read 189.36.
25. Population column No. 13, sub-column 38 for 10,900,342 read 10,700,342.
26. Ratio per 1,000 of population, column No. 6, sub-column 24 for 10.71 read 10.80.
27. The foot note of annual Form No. IV for 25,639 read 120,585.

### STATEMENT NO. V.

28. Population according to census of 1931, column No. 4, sub-column 45 for 225,222 read 252,222.
29. Ratio per 1,000 of population column No. 4, sub-column 45 for 237.36 read 211.95.
30. Column No. 9, sub-column 90 against Montgomery for 3 read 13.
31. Column 15, sub-column 138, ratio of Indian Christian female total for 31.74 read 21.76.



## STATEMENT No. VI-A. (RURAL CIRCLES).

32. Column No. 14, sub-column No. 22, ratio against Rohtak rural circle for nil read 0.01.  
 33. Column No. 7, sub-column 10, against total for 10.40 read 1,040.

## STATEMENT No. VI-B. (TOWNS).

34. Column No. 14, sub-column 31, against Ballabgarh town for 36.16 read 36.76.  
 35. Column No. 4, sub-column 7, against Jagadhri town for 42.41 read 43.56.  
 36. Column No. 14, sub-column 29, against Dasuyah town for 4.21 read 4.23.  
 37. Column No. 14, sub-column 29, against Phillaur town for 9.27 read 9.29.  
 38. Column No. 14, sub-column 28, against Patti town for 0.25 read 0.23.  
 39. Column No. 14, sub-column 30, against Patti town for 26.55 read 26.08.  
 40. Column No. 14, sub-column 23, ratio against Tarn Taran town for 1.10 read 0.10.  
 41. Column No. 14, sub-column 30, against Sujampur town for 37.74 read 34.74.  
 42. Column No. 14, sub-column 25, against Jamke town for 10.84 read 10.94.  
 43. Column No. 14, sub-column 30, against Pasrur town for 22.68 read 22.77.  
 44. Column No. 4 sub-column 7, against Sheikhpura for 18.91 read 18.82.  
 45. Column No. 3, sub-column 3, against Kharian town for 3,534 read 3,524.  
 46. Column No. 11, sub column 19, against Lalamusa town for 5i read 5.  
 47. Column No. 14, sub column 26, against Shahpur Civil Station for 0.10 read 0.92.  
 48. Column No. 14, sub-column 27, against Gujrat town for 3.88 read 3.77.  
 49. Column No. 4, sub-column 7, against Lalamusa for 21.02 read 210.21.  
 50. Column No. 4, sub-column 7, against Miani town for 43.06 read 43.88.  
 51. Column No. 14, sub-column 28, against Bhalwal town for 0.24 read 0.48.  
 51-A. Column No. 4, sub-column 7, against Kharian town for 31.44 read 31.50.  
 52. Column No. 4, sub-column 7, against Bhalwal town for 29.81 read 29.86.  
 53. Column No. 14, sub-column 30, against Chakwal town for 19.90 read 18.97.  
 54. Column No. 14, sub-column 25, against Bhakkar town for 23.58 read 23.48.  
 55. Column No. 14, sub column 28, against Kalabagh for 0.22 read 0.24.  
 56. Column No. 14, sub-column 23, against Samundri town for 0.04 read 0.44.  
 57. Column No. 4, sub-column 7, against Kahrur town for 23.61 read 23.63.  
 58. Column No. 14, sub-column 27, against Karor town for 0.59 read 0.57.  
 59. Column No. 5, sub-column 8 total of towns against Cholera for 391 read 198

## STATEMENT No. IX-A.

60. Column No. 7, sub-column 22, against Montgomery for 0.002 read 0.001.

## STATEMENT No. XII.

61. Column No. 7, sub-column 24, against Hoshiarpur district for 2.30 read 2.33.

## Statement No. I showing particulars of vaccination.

62. Column No. 25 against Rural Circle Karnal for 51.08 read 51.06.  
 63. Column No. 19 against Rohtak town for 96.31 read 99.20.  
 64. Column No. 3, Ambala division for Ferozepore town read Firozpur.  
 65. Column No. 21, against Hodal town for 43.73 read 44.78.  
 66. Column No. 10, against total of Municipal towns for 1,388 read 1,311.  
 67. Column No. 20, ratio against Municipal towns for 59.75 read 59.88.  
 68. Column No. 21, ratio against Municipal towns for 65.45 read 41.73.  
 69. Column No. 10, against total of Ambala division for 2,172 read 2,814.  
 70. Column No. 19, ratio against Ferozepore rural circle for 98.06 read 93.35.  
 71. Column No. 20, ratio against total (a) of Jullundur division for 58.05 read 59.05.  
 72. Column No. 22, ratio against Ferozepore rural circle for 36.55 read 3.66.  
 73. Column No. 22, ratio against Nurmahal town for 4.22 read 4.26.  
 74. Column No. 20, ratio against Ludhiana town for 35.78 read 35.80.  
 75. Column No. 22, ratio against Jagraon town for 20.12 read 20.02.  
 76. Column No. 23, ratio against Zira town for 11.02 read 10.63.  
 77. Column No. 22, ratio against Sheikhpura rural circle for 10.75 read 10.72.  
 78. Column No. 10, average against Attock rural circle for 54,024 read 5,404.  
 79. Column No. 19, ratio against Attock rural circle for 97.29 read 97.82.



80. Column No. 26, against total of rural circle, Rawalpindi Division *for 1,385 read 1,285.*
81. Column No. 27, against total of rural circle, Rawalpindi Division *for 0.39 read 0.36.*
82. Column No. 20, ratio against Bhera town *for 100.00 read 80.66.*
83. Column No. 23, ratio against Bhera town *for 19.34 read nil.*
84. Column No. 22, ratio against Khushab town *for 34.24 read 14.24.*
85. Column No. 19, ratio against Kalabagh town *for 77.61 read 97.61.*
86. Column No. 26, against grand total of Rawalpindi Division *for 1,510 read 1,410.*
87. Column No. 27, ratio against the grand total of Rawalpindi Division *for 0.39 read 0.37.*
88. Column No. 25, ratio against Kamalia town *for 38.28 read 32.75.*
89. Column No. 10, "average by each vaccinator" against Multan town *for 1,964 read 1,473.*
90. Column No. 27, ratio against Kamalia town *for 0.44 read 0.38.*
91. Column No. 10, against average by each vaccinator for the total of Municipal towns *for 2,071 read 1,911.*
92. Column No. 10, average against total of Multan division *for 3,731 read 3,698.*
93. Column No. 22, ratio against total of Multan division *for 10.08 read 10.06.*
94. Column No. 20, ratio against Dispensary staff *for 84.17 read 84.76.*

## SUMMARY.

95. Ratio against Dispensary staff under "percentage of successful cases of the revaccination in which the results known" *for 84.17 read 84.76.*
96. Ratio against successful vaccination per thousand of population against total of Summary *for 54.10 read 54.15.*

## STATEMENT NO. II—VACCINATION.

97. Column No. 7, sub-column 22, average against Simla district, *for 1/3/- read 1/-/2.*
98. Column No. 7, sub-column 22, average against Jhelum district, *for -/3/5 read -/5/2.*
99. Column No. 4, sub-column 5, against total of districts *for 37 read 38.*
100. Column No. 4, sub-column 11, against vaccine institute *for (a) read (d).*
101. Column No. 4, sub-column 5, against grand total *for 39 read 40.*

## STATEMENT NO. IV.

102. Column No. 16, against Hissar, *for 60.00 read 60.02.*
103. Column No. 13, against Ambala, *for 98.06 read 98.02.*
104. Column No. 12, against Attock, *for 51.21 read 51.28.*
105. Column No. 11, against total of districts, *for 43.97 read 43.91.*



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*Proceedings of the Punjab Government (Ministry of Education) in the Public Health Department, No. 35974/Medl., dated the 14th November 1932.*

READ—

The report on the Public Health Administration of the Punjab for the year 1931.

The year 1931 was remarkable in the first half for deficient rainfall and humidity conditions which were unfavourable to plague epidemics and during the latter half for a weak monsoon during the months of July and August which militated against the widespread epidemic of malaria. The bearing of general meteorological conditions upon the public health was less obvious than usual in the absence of any great pestilence. The year was remarkable for continued and sustained decline in prices of staple food-grains, but there is no evidence that the state of public health has deteriorated in consequence to any marked degree: in fact it may be said that a condition of low agricultural prices is preferable to high prices from the public health point of view and that much more disease than is generally supposed may be attributed to improper diet rather than to inadequate nourishment.

2. *Vital statistics.*—At the census taken in February 1931 population in British Indian districts was recorded as 23,460,267 showing an increase of nearly 2,942,661 since the enumeration of 1921 and an increase of nearly 300,000 per annum during the decade. The actual increase of population during the year 1931 was 393,035 as compared with 278,939 in the previous year. This indicates that conditions were unusually favourable to health during the year. The population by religions in 1931 was recorded as follows:—

Muhammadans	...	..	13,332,460
Hindus including Jains	..	..	6,363,872
Sikhs	...	...	3,064,144
Indian Christians	...	..	389,149
Other classes	...	...	405,588.

The Muhammadans increased by 14·76 per cent., Sikhs by 25·12 per cent., Indian Christians by 22·49 per cent. and 'Others' by 94·20 per cent. while Hindus decreased by 3·92 per cent. The rural population numbered 20,337,938 showing an increase of 2,060,618 since last census and urban population numbered 3,121,229 showing an increase of 1,082,857. The proportion of rural and urban population was 86·7 and 13·3 as compared with 89·8 and 10·2 in 1921. In 1931 a record number of 1,002,251 births were recorded showing an excess of 114,730 over the figure of 1930, being highest in September and October and lowest in May. The male birth-rate was as usual higher than the female birth rate, the excess being 2·4 *per mille* as compared with 2·1 *per mille* in the preceding quinquennium. The birth rate in rural areas was 43·6 *per mille* against 36·8 *per mille* in towns. The provincial death rate was 26·0 *per mille* as compared with 25·7 *per mille* during the preceding quinquennium: actually the total number of deaths registered in 1931 was 609,216, i.e., 634 in excess of the 1930 figure. As usual the female death rate exceeded the male. The difference in 1931 being 1·5 *per mille*. The number of deaths registered in towns was 69,337, i.e., 22·21 *per mille* as compared with the mean of 21·75 *per mille* during the preceding five years. The actual number of deaths recorded exceeded the 1930 figure by 230. The number of deaths registered in rural circles was 539,879 or 538 less than the figure of 1930. The death rate was 26·55 *per mille* as compared with the mean of 26·37 during the preceding five years. The figures of the age incidence of mortality call for no special remarks and increased mortality among infants not exceeding one month, is



mainly attributable to the increased number of births. The number of deaths under one year of age per thousand births was 178·26 or 7·47 less than the corresponding rate in 1931. This high figure indicates that the problem of infantile mortality remains as serious as ever and Government consider that the surest remedy is to increase the number and size of health centres in the province as rapidly as possible. The death rate among Hindus including Sikhs was slightly higher than Muhammadan death rate, the figure being 27·54 and 25·36 *per mille* respectively. The female death rate among all classes except 'Others' was higher than the male rate. In his summary of the state of public health in 1931, the Director of Public Health while admitting that the circumstances making the year one of the healthiest on record were fortuitous hopes that a decade has just commenced which will witness progressive improvement in the Punjab as compared with other provinces of India. At present in birth rate it stands second and in death rate it stands seventh among the provinces of India.

3. *Chief Diseases.*—Cholera was responsible for 706 seizures and 391 deaths only as compared with 2,040 seizures and 1,181 deaths in 1930. Anti-cholera measures were conducted on the usual lines and credit is due to the Public Health Department for prompt action in eradicating infection and preventing the spread of the disease where it occurred, particularly in rural areas. Government concur with the conclusion of the Director of Public Health that until conservancy arrangements of urban areas are radically improved, the province will continue to be liable to outbreaks of cholera which will be difficult to control. The small-pox death rate was 0·16 *per mille* as compared with the mean death rate of 0·42 *per mille* in the preceding quinquennium. All districts were infected, and as usual the urban death rate was higher than the rural. The report shows that 50 per cent. of the small-pox mortality occurs among children between one year and 10 years of age and stresses the importance of revaccination between the ages of 7 and 10. The desirability of improving the vaccinal condition of the female population is borne out by the higher female death rate from small-pox. Government agree with the opinion of the Director of Public Health that the need of special hospitals in all large towns for isolation and treatment of small-pox will continue and note with regret that properly staffed small-pox hospitals exist only in the towns of Lahore and Simla.

Plague in 1931 was confined to three districts only and the plague death rate was 0·05 *per mille* as compared with the mean of 1·09 *per mille* during the preceding quinquennium: in fact it may be said that plague has lost its former importance as a cause of mortality in the Punjab, and during the year under report it persisted only in a small number of sub-mountain localities. 62,468 persons were inoculated against plague. The report contains a warning however that intensive rat destruction provides only a temporary remedy and that the re-appearance of the epidemic may be anticipated.

The death-rate of fevers in 1931 was 17·77 *per mille* as compared with the mean annual death-rate of 16·60 *per mille* during the previous quinquennium. The rural fever death-rate is reported to have exceeded the urban death-rate abnormally. The five districts responsible for the higher death rate were Muzaffargarh, Mianwali, Gujranwala, Dera Ghazi Khan and Karnal. It is estimated that epidemic malaria was responsible for as many as 30,000 deaths during the year. Government concur with the Director of Public Health that the true solution of epidemic malaria lies in measures to prevent prolonged flooding of low-lying tracts. Dysentery and Diarrhoea were responsible for 14,284 deaths as compared with 12,247 deaths in the previous year and were particularly prevalent in towns, mainly owing to defective conservancy arrangements. The same remark applies to respiratory diseases, of which the mortality is reported to be 55,317 as compared with 51,678 in the previous year. Government note with regret that the prevalence of many of the chief diseases is



due to the unsatisfactory standard of sanitation maintained by local body committees and would impress on such committees that the preservation of public health is their primary duty.

4. *Vaccinations.*—The total number of vaccinations performed by all establishments was 1,718,980, a decrease of 10,102 as compared with the previous year, the falling off being chiefly in the case of revaccination. Actually a record number of primary vaccinations was performed. The report shows that there has been remarkable improvement in vaccination in the last five years as compared with the preceding quinquennium, and it is claimed that this progress alone justifies the existence of the Public Health Department as reorganized. The cost of each successful vaccination carried out by all establishments was Re 0-4-4 as compared with Re. 0-4-2 in the previous year and the success rate of vaccination remained practically the same as in the previous year. District Boards made use of their powers to apply the Vaccination Law Amendment Act in nine districts. Generally Government are satisfied with the progress shown in vaccination during the last five years and trust that a stage will soon be reached when in practice vaccination will be a condition of admission to local body schools.

5. *Sanitation, Urban.*—During 1931, 31 sanitary projects were undertaken on behalf of local bodies and 4 preliminary projects and 19 detailed projects were prepared by the Sanitary Engineering Circle. In view of financial stringency these figures are satisfactory. At the same time Government regret that local bodies tend to be lax in the maintenance of projects once completed. The expenditure on public health measures amounted to Rs. 39,65,821 showing cost per head of Rs. 2-2-5 as compared with Rs. 2-8-6 in the previous year. These items of expenditure were as before on water supply, conservancy and drainage.

6. *Sanitation, Rural.*—Most of the activities of the Public Health Department in this respect have already been mentioned previously under various heads. Assistance by the Rural Sanitary Board was chiefly devoted to improvement of water supply in villages, and general paucity of funds compelled concentration on a campaign for cleaning up old established villages, particularly by purifying their wells and paving and draining their streets. Government note with pleasure in this connection that the report acknowledges valuable assistance from Deputy Commissioners.

7. *Religious fairs.*—The District Medical Officers of Health, as usual, took special steps to organize sanitary arrangements for the more important fairs of the Province.

8. *School Hygiene.*—During the year Public Health officials carried out sanitary inspections of 488 colleges and schools in co-operation with the Education Inspectorate. Government hope that steps will be taken as soon as practicable to eradicate the insanitary environments which were prominently brought to light by these inspections.

9. *Administration.*—The charge of the office of the Director, Public Health, Punjab, was held by Lt.-Col. C. A. Gill, D. P. H., I. M. S., from 1st January to 21st March 1931, when he proceeded on eight months' leave and subsequently from November 19th to 31st December 1931 on return from leave and for the rest of the year by Khan Bahadur Dr. K. A. Rahman. Government are pleased to note the progress made by the Department and its success in combating epidemics under the administration of these two officers and thank Col. C. A. Gill for his full and detailed report.

Lt.-Col. Gill has been appointed Inspector-General of Civil Hospitals, Burma, and Government desires to place on record its appreciation of his unsparing and successful efforts to advance the cause of public health in this Province, and to provide it with an efficient public health administration.

*Order.*— Ordered that copies of this review be circulated with the report, and be furnished with the usual number of copies of the report to the Government of India ; also that the review be published in the *Punjab Government Gazette*.

Ordered further that a copy be furnished to the Director of Public Health, Punjab, for information.

By order of the Punjab Government,

(Ministry of Education),

FIROZ KHAN NOON,

P. MARSDEN,

Minister for Education.

Secretary to Government, Punjab,

Transferred Departments.



### **Errata.**

1. On page 24, paragraph 42, line 20, *insert* “ they ” after “ that ”.

2. Against item No. 5 (Dharamsala Cantonment) of Appendix II, page vii, *insert* 251 in columns 6 and 10, 98 in columns 11 and 19 and 153 in column 20.





## CHAPTER I.—Climatic and Economic Conditions.

1. In few parts of the world is the influence of meteorological conditions upon the state of the public health so striking as in India, and in no part of this sub-continent is the association of great epidemics of malaria and plague with conspicuous vagaries of climate so manifest as in the Punjab. The Punjab was, however, not afflicted in the year 1931 with any of the great pestilence and the influence exerted by meteorological conditions upon the public health is less obvious than usual.

Nevertheless they were not altogether without influence, and it is proper, therefore, that this report should open with a brief account of the chief meteorological features of the year. The following summary is based upon a report supplied by the Director-General of Observatories, supplemented by the data given in Appendix VI, in respect of the mean monthly temperature, humidity and rainfall of 13 selected stations.

Although eight western disturbances entered north-west India in January, 1931, only two were productive of rainfall. The average rainfall of the month was in consequence almost everywhere in large defect, and, in association with the low rainfall, the mean monthly temperature was considerably above normal, whilst the mean relative humidity was appreciably in defect. In February, six disturbances entered the Punjab from the west, but the precipitation associated with them was confined to the hills and the adjacent plains, and the rainfall of the month was approximately normal in the east and north, and in large defect in the south-west. February, however, was an unusually cold month, the mean temperature was appreciably below normal, more especially in the south-west, whilst the relative humidity was in most places in distinct excess.

In March three western disturbances were associated with rainfall, and the small but widespread precipitation associated with the first caused the rainfall of the month to be normal in amount in the east and north of the province and in slight excess elsewhere. The mean temperature of the month exhibited little departure from normal, but relative humidity was in many places in appreciable defect. In April there were eight western disturbances, but only three were productive of rainfall, which was, however, small in amount and local in distribution, and the total rainfall of the month was almost everywhere in defect. The mean temperature of the month was considerably above normal and the mean relative humidity in marked defect. April was thus an abnormally hot and dry month, but in May, somewhat unusually, widespread rainfall was associated with the first of the three western disturbances that occurred in this month, whilst towards the close of the month thunder-storms were responsible for local rainfall and a decline of atmospheric temperature. The total rainfall of May was 37 *per cent.* in excess in the east and north and 145 *per cent.* in excess in the south-west of the province, whilst the mean temperature and relative humidity were generally below normal. In June, in spite of two temporary advances of the monsoon, the rainfall was almost everywhere in defect, but the mean temperature was approximately normal, whilst the relative humidity, in association with the low rainfall, was in marked defect. The monsoon current entered the province early in July and caused on the 4th and 5th of the month widespread and heavy rainfall in the east and north of the province, and local falls in the south-west.

During the second week of the month the monsoon was inactive, but it gave widespread precipitation during the third week, and, again, towards the close of the month. The total rainfall of July was almost everywhere in slight to moderate excess, whilst the mean temperature was below normal and the mean relative humidity in moderate excess.

The monsoon was active in the east and north of the Punjab throughout the month of August, but it gave little rainfall in the south-west. The total rainfall of the month was, in consequence, in appreciable excess in some of the eastern districts and in moderate or marked defect in the south and south-west of the province. In the first week of September rain fell on several days in the east and north, but thereafter the monsoon current weakened, but a short revival on the 23rd September was followed by almost daily showers in the



east and north of the province. The total rainfall of the month was, however, in defect, whilst the mean temperature and relative humidity exhibited no large departure from normal.

The monsoon withdrew from the province early in October, but three western disturbances in the middle of the month caused appreciable rainfall over a wide area with the result that the total rainfall of this usually almost rainless month was three times the normal in the east and north and nearly four times the normal in the south-west of the province. The mean temperature was slightly above normal, whilst the mean relative humidity, in consequence of the unusual rainfall, was in appreciable excess.

The months of November and December, in spite of eight western disturbances, which were feeble and short-lived, were almost rainless. The mean temperature was, in consequence, appreciably higher than normal and relative humidity was in moderate or in appreciable defect.

The chief meteorological features of the first half of the year were, therefore, the deficient rainfall and the low relative humidity during the first four months of the year, and, in the second half, an almost normal monsoon. These facts have a direct bearing on the public health, since the former are associated with conditions inimical to plague epidemics, whilst the absence of a conspicuous and widespread excess of rainfall in July and August negated the occurrence of a widespread epidemic of malaria.

2. The average wholesale price of the staple food-grains of the province expressed in terms of rupees per maund, prevailing in the four principal markets during the year 1931 and the two previous years is shown in Table I :—

TABLE I.

Locality.	WHEAT.			BARLEY.			JOWAR.		
	1931.	1930.	1929.	1931.	1930.	1929.	1931.	1930.	1929.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Ambala ..	2 0 1	3 1 6	5 1 7	1 11 2	2 4 11	3 15 5	..	..	..
Lahore ..	2 0 5	3 0 6	5 3 5	1 8 4	2 2 5	3 12 4	2 8 11	3 1 2	4 13 10
Rawalpindi	2 4 3	3 4 8	5 5 11	1 10 9	2 3 9	3 8 5	2 5 3	2 13 0	4 4 9
Multan ..	1 12 3	2 13 7	4 15 7	1 4 10	2 1 5	3 15 1	1 7 6	2 10 10	4 5 1

Locality.	BAJRA.			MAIZE.			GRAM.		
	1931.	1930.	1929.	1931.	1930.	1929.	1931.	1930.	1929.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Ambala ..	..	..	..	1 8 6	2 7 2	4 0 2	2 5 11	3 14 5	..
Lahore ..	1 15 1	3 6 1	5 2 6	1 14 4	2 14 5	5 2 10	2 4 8	3 10 6	..
Rawalpindi	1 14 4	2 13 10	5 3 7	1 10 3	2 13 11	4 3 4	2 7 4	3 11 2	..
Multan ..	1 12 8	2 12 4	5 2 6	1 13 0	2 11 4	5 0 0	2 2 9	3 6 4	..

From a scrutiny of the figures given in Table I it will be seen that the price of food-grains has undergone a remarkable decline during the past three years, the main cause being the decline in the export of wheat owing to the world-wide depression of trade. In previous reports the adverse effect of a *rise* of prices on the state of the public health has formed the subject of comment, and it is consequently almost a paradox that the *low* price of staple food-grains during the year under review should be a source of anxiety. But although public and domestic budgets have been seriously affected, there is little or no evidence that the fall



in prices has exercised a deleterious effect upon the health and well-being of the people. An analysis of the vital statistics, indeed, leads to the conclusion that the economic conditions were exceptionally favourable to health during the year under review. Thus, the natural increase in the population in 1931 was 393,035 as compared with 278,939 in the previous year, the number of births was also appreciably larger than in any previous year for which statistics are available, the number of children born in the year 1931 being 1,002,251, as compared with 887,521 in the previous year and a mean of 894,255 in the previous five years. In spite of the high birth-rate, the total number of deaths was not appreciably increased, 6,09,216 deaths being recorded in 1931 as compared with 608,582 in the previous year. The infantile mortality-rate—a delicate test of economic stress—was also lower than in the year 1930, the figures being 178·26 in 1931, as compared with 185·73 in the preceding year. Finally the province remained unusually free from epidemics throughout the year. In these circumstances, it must be concluded that even if the great fall in the price of wheat and cotton seriously reduced the income of the peasant and his ability to pay his way, there is no evidence that he suffered in health as well as in pocket. On the contrary, the great cheapness of the staple food-grains rendered it possible for even the poor man to obtain, with the aid of his hidden reserves, more of the necessities of life than would have been possible in normal times. No evidence, therefore, is forthcoming that the precarious condition of agricultural population occasioned by the phenomenal fall in prices has exercised an adverse effect upon their health—and it may safely be concluded that, from the public health stand-point, low prices must always be preferable to high prices.

An appreciable proportion of both the urban and rural population, however, is constantly afflicted by disease and ill-health as a direct or indirect result of economic stress. This fact has become increasingly evident during the past few years, and it is now known that several diseases, such as rickets, scurvy and osteomalacia, which are either predisposed to or caused by an improper or unsuitable diet—rather than upon a lack of food or ability to purchase it—are widely prevalent in the province.

One of the most important tasks of the Public Health Department, if its efforts to promote the health and well-being of the people are to succeed, is, therefore, the inception of measure directed against dysgenic habits and customs that deprive the body of essential food factors (vitamines), and thereby lower resistance to infection or give rise to specific disease.

## CHAPTER II.—Vital Statistics.

3. **Population.**—At the census taken in February 1931, the population of British districts (excluding Europeans and Anglo-Indians and the military population of cantonments) was 23,460,267, which is 2,942,661 in excess of the population enumerated in April 1921. The natural increase of the population during the decade was therefore approximately three millions or 300,000 per annum. The actual rate of increase since the first regular census in 1881 is, however, much smaller; in fact, after excluding the North-West Frontier Province and Delhi, the population during the past 50 years has only increased by approximately six-and-a-half millions or at the rate of 137,005 per annum. The natural increase of the population during the year 1931 was 393,035, as compared with 278,939 in the previous year and an average of 290,551 during the five preceding years, which indicates that conditions were unusually favourable to health during the year under review.

The estimated population on December 31st, 1931, which is calculated by adding the births and subtracting the deaths that have occurred since April 1921, was 23,798,649 or 338,382 in excess of the population enumerated in March 1931. This excess of the estimated over the census population is mainly due to the excess of births over deaths (approximately 300,000) during the nine months from March to December, 1931, but a contributory cause is no doubt the fact that the estimated population does not take into account the loss of population caused by migration during the decade. In accordance with custom all rates given in this report are calculated on the population enumerated at the last preceding census and it thus comes about that the rates in the year 1931 are based upon the census population in February 1931. It follows, however, from the adoption of this procedure that the corresponding rates in the year 1930 were



calculated upon the census population in the year 1921, and since it has been shown that the population increased by approximately 3 millions during the decade, the rates of these two years are not comparable *inter se*. Indeed, it is obvious that inferences based upon rates so differently calculated are likely to be fallacious. It is consequently proposed in this report to utilize actual figures, instead of rates *per mille*, as the basis of comparison in respect of the statistics of the years 1930 and 1931.\*

The increase in the population during the decade was shared by all districts of the province (except Simla), the largest increase being recorded in the districts of Montgomery and Multan which include within their boundaries the newly developed Nili Bar Colony. The eight districts showing the largest percentage increase of population during the decade are Montgomery, + 28·59; Multan, + 24·46; Lyallpur, + 18·70; Lahore, + 17·97; Amritsar, + 16·83; Ludhiana, + 15·59; Gujranwala, + 15·28; and Jhang, + 14·17; whilst the five districts showing the smallest increase are Karnal, + 2·80; Muzaffargarh, + 3·87; Rohtak, + 4·13; Kangra, + 4·30 and Dera Ghazi Khan, + 4·48.

The population enumerated in February 1931 comprised 12, 798,121 males and 10,662,146 females, the corresponding figures in the year 1921 being 11,204,834 males and 9,312,772 females. In February 1931 males outnumbered females by 2,135,975, the corresponding figure in April 1921 being 1,892,062, which thus indicates that the disproportion between the sexes has increased by 243,913 during the decade. The steady increase in the disparity between the sexes, to which attention has been previously called, is a disquieting feature the remedy for which will demand many years of sustained effort on the part of the various organizations engaged in promoting the emancipation of women, female education, and the general uplift of womanhood.

The population by religions in 1931 is as follows :—

Muhammadans	..	..	..	13,332,460
Hindus	..	..	..	9,428,016
Indian Christians, and	..	..	..	389,149
Other classes	..	..	..	405,588

The number of Muhammadans increased during the decade by 1,967,401, which represents an increase of 14·76 *per cent*. Hindus, including Hindus, Sikhs and Jains, increased during the decade by 600,641 or 6·37 *per cent*., Indian Christians by 87,509 or 22·49 *per cent*., and “ Other classes ” which include Buddhists, Ad Dharmies, Jews and Zoroastrians, by 382,056 (94·20 *per cent*.).

Table II shows the composition of the population by sexes and classes in the years 1921 and 1931, respectively, together with the percentage increase during the decade :—

TABLE II.

Religion.	1931.		1921.		Percentage increase in 1931.
	Males.	Females.	Males.	Females.	
Muhammadans .. ..	7,241,612	6,090,848	6,147,435	5,217,624	14·76
Hindus .. ..	5,187,869	4,240,147	4,875,328	3,952,047	6·37
Indian Christians .. ..	211,782	177,367	165,276	136,364	22·49
Other classes .. ..	221,011	184,577	16,795	6,737	94·20

The rural population in 1931 numbered 20,337,938 which represents an increase of 2,060,618 (9·14 *per cent*.) over the figure recorded at the preceding census, whilst the urban population which numbered 2,039,472 in 1921, increased during the decade by 1,082,857; but no appreciable change took place in the proportion of the urban and rural population, the percentage in 1931 being 13·3 and 86·7 *per cent*., in towns and rural areas, respectively, as compared with 10·2 and 89·8 *per cent*. in 1921.

\*NOTE.—It is for consideration whether it would not be expedient in future to base these rates during intercensal years on the estimated rather than the census population, but any change in the existing procedure would be undesirable unless it was universally adopted in India.



4. **Births.**—The total number of births registered during the year 1931 attained the record figure of 1,002,251, which is 114,730 in excess of the births recorded in the previous year. The provincial birth-rate, was, however, only 42·7 *per mille* as, compared with 43·3 *per mille* in the previous year and a mean birth-rate of 38·1 *per mille* during the preceding quinquennium. Owing, however, to the fact that, as explained in paragraph 3, the birth-rates of 1930 and 1931 are calculated on different census populations, they are not strictly comparable; indeed, if the birth-rate of 1931 had been calculated on the same population as in the previous year, it would have been not only appreciably higher than the birth-rate of 1930 but it would have been the highest birth-rate (48·8 *per mille*) ever recorded in the history of the province. The birth-rate exhibited the usual seasonal variations, being highest in the autumn, September (4·35) and October (4·31) and lowest in May (2·55).

The male and female births and birth-rates during the year under review and the preceding year are shown in Table III :—

TABLE III.

Year.	MALES.		FEMALES.		Excess of male over female births.	Rate of excess.
	Births.	Birth-rate.	Births.	Birth-rate.		
1931 .. ..	528,336	22·5	473,915	20·1	54,421	+2·4
1930 .. ..	469,771	22·9	417,750	20·4	52,021	+2·5
1926—1930 .. ..	..	20·1	..	18·0	..	+2·1

The male birth-rate in 1931 was, as usual, higher than the female birth-rate, the excess being 2·4 *per mille*, as compared with 2·5 *per mille* in the year 1930, and 2·1 *per mille* in the preceding quinquennium. The secondary sex-ratio, or the number of males born for every 100 females, showed little variation from the normal of 112:100, being 111·5 : 100 in 1931, as compared with 112·5 : 100 in the year 1930 and a mean of 111·9 : 100 during the preceding five years. Apart from the phenomenal number of births, the above features do not call for comment, since they exhibit no departure from normality.

5. **The District Birth-Rate.**—The district birth-rate varied between a maximum of 50·0 *per mille* and a minimum of 33·0 *per mille*. The five highest birth-rates were registered in Gurgaon (50·0); Gurdaspur (48·6); Sialkot (47·5); Lyallpur (47·3); and Mianwali and Rohtak (46·3), whilst the five lowest birth-rates were recorded in the districts of Simla (33·0); Montgomery (34·7); Kangra (37·6) and Lahore (37·7) and Attock (38·2).

6. **The Urban and Rural Birth-Rate.**—The number of towns with a population of 10,000 or over, which in 1921 was 45, numbered 57 in 1931, and the birth-rate of these 57 towns was 36·5 *per mille*, whilst the birth-rate of all towns, 230 in number, was 36·8 *per mille*. The birth-rate of the cities of Lahore, Amritsar and Multan was 28·27, 33·19 and 45·79 *per mille*, respectively.

The birth-rate in rural areas was 43·6 *per mille*, being thus, as usual, appreciably higher than the urban birth-rate.

7. **Deaths.**—The total number of deaths registered in the year 1931 was 609,216, which was 634 in excess of the figure of the previous year. The provincial death-rate was 26·0 *per mille* as compared with 29·7 in the preceding year, and a mean death-rate of 25·7 *per mille* during the preceding quinquennium. Although the number of deaths in the year 1931 slightly *exceeded* the number recorded in the previous year, the death-rate in 1931, for the reasons already explained, was actually appreciably *lower* (—3·7) than the death-rate of the previous year.



Owing to the manner in which the death-rates in 1930 and 1931 are calculated, it would serve no useful purpose to compare the rates of these two years under each of the eight major heads of mortality and in Table IV the total deaths are shwn :—

TABLE IV.

Head of Mortality.				1931.	1930.	Difference in 1931.
Cholera	..	..	..	391	1,181	—790
Smallpox	..	..	..	3,646	5,341	—1,695
Plague	..	..	..	1,150	554	+596
Fevers	..	..	..	416,974	422,377	—5,403
Dysentery and Diarrhoea	..	..	..	14,284	12,247	+2,037
Respiratory Diseases	..	..	..	55,317	51,678	+3,639
Injuries	..	..	..	6,110	6,103	+7
All other causes	..	..	..	111,344	109,101	+2,243
Total				609,216	608,582	+634

From a scrutiny of Table IV it will be seen that a small increase of 634 in the number of deaths in the year 1931 was associated with an increase of mortality under the head of respiratory diseases—dysentery and diarrhoea and plague—and a decrease under the heads of cholera, small-pox and “fevers.”

The male and female deaths and death-rates during the year under report, the previous year, and the mean of the previous five years are shown in Table V:—

TABLE V.

Year.	MALES.		FEMALES.		Excess of female over male death-rate.
	Number of deaths.	Death-rate.	Number of deaths.	Death-rate.	
1931 .. ..	323,234	25·3	285,982	26·8	+1·5
1930 .. ..	323,754	28·9	284,828	30·6	+1·7
1926—1930 .. ..	..	25·0	..	26·6	+1·6

From a scrutiny of the figures given in Table V it will be seen that the female death-rate as usual exceeded the male death-rate, the difference in 1931 being 1·5 *per mille*, as compared with 1·7 in the year 1930 and a mean of 1·6 *per mille* during the preceding five years.

**8. The District Death-Rate.**—The death-rate of districts varied between a maximum of 33·0 *per mille* and 20·3 *per mille*. The highest death-rates were recorded in the districts of Kangra (33·0); Gurdaspur (31·3); Ambala (30·0); Amritsar, (28·8); Karnal (28·6), whilst the five lowest death-rates were registered in the districts of Gujrat (20·3); Montgomery (20·7); Multan (22·2); Lyallpur (22·5) and Jhelum (23·0).



9. **The Urban Death-Rate.**—The number of deaths registered in towns, 230 in number, was 69,337, which was 1,172 in excess of the figure of the previous year. The death-rate in 1931 was 22.21 *per mille*, as compared with 30.43 during the previous year and a mean of 21.75 *per mille* during the preceding five years. In Table VI is given the number of deaths recorded under each of the eight main heads of mortality in towns in the years 1930 and 1931 :—

Annual Form No. VI-B.

TABLE VI.

Head of mortality.				1931.	1930.	Increase or decrease in 1931.
Cholera	..	..	..	198	700	—502
Smallpox	..	..	..	579	1,138	—559
Plague	..	..	..	110	12	+98
“ Fevers ”	..	..	..	31,621	30,829	+792
Dysentery and Diarrhœa	..	..	..	3,812	3,425	+387
Respiratory Diseases	..	..	..	14,335	13,211	+1,124
Injuries	..	..	..	748	838	—90
All other causes	..	..	..	17,934	18,012	—78
Total				69,337	68,165	+1,172

In spite therefore of a decrease of 8.22 *per mille* in the urban death-rate, as compared with the year 1930, the total mortality in towns in the year 1931 actually exceeded the figure for the previous year by 1,172. It will also be seen from a scrutiny of the figures contained in Table VI that the deaths from cholera and smallpox showed a reduction during the year under review as compared with the previous year, whilst an appreciable increase of mortality occurred under the heads of respiratory diseases, “ fevers ” and dysentery and diarrhoea and a small increase under the head of plague. The death-rate of the cities of Lahore, Amritsar and Multan was 20.58, 24.67 and 28.22 *per mille*, respectively.

With a view to obtaining more accurate information in regard to the cause of deaths a new form has been introduced, at the instance of the Public Health Commissioner with the Government of India, in which, in the case of 13 towns in charge of whole-time Health Officers, the deaths from “ fevers,” dysentery and diarrhoea and respiratory diseases are classified according to their cause. The attempt to differentiate the diseases classified under these headings has not been entirely successful, but it is hoped, when the financial position becomes more favourable, that it will be possible to re-introduce the scheme, which has already been in operation for a year as an experimental measure, for the payment of fees for the notification of infectious diseases in municipal towns.

Annual Form No. VI-D.

The statistics given in Annual Form No. VI-D in respect of these 13 towns, however, show that pneumonia, pulmonary tuberculosis, enteric fever, malaria, measles, dysentery and diarrhoea were responsible for an appreciable number of deaths during the year 1931, but it is certain that the figures constitute only a small fraction of the mortality occasioned by these diseases.

10. **The Rural Death-Rate.**—The number of deaths registered in rural circles during the year 1931 was 539,879, or 538 less than the number recorded in the previous year. The death-rate in the year under review was 26.55 *per mille*, as compared with 29.57 in the previous year and a mean death-rate of 26.35 *per mille* during the preceding quinquennium.

Annual Form No. VI-A.



In Table VII the number of deaths in rural circles under each of the main heads of mortality, in the years 1930 and 1931 is recorded and contrasted :—

TABLE VII.

Head of Mortality.	1931.	1930.	Excess or decrease in 1931.
Cholera .. ..	193	481	—288
Smallpox .. ..	3,067	4,203	—1,136
Plague .. ..	1,040	542	+498
Fevers .. ..	385,353	391,548	—6,195
Dysentery and Diarrhoea .. ..	10,472	8,822	+1,650
Respiratory Diseases .. ..	40,982	38,467	+2,515
Injuries .. ..	5,362	5,265	+97
All other causes .. ..	93,410	91,089	+2,321
Total .. ..	539,879	540,417	—538

The figures given in Table VII show that in rural circles the mortality under the head of “fevers,” smallpox and cholera was smaller in the year 1931 than in the previous year, whilst the mortality recorded under the head of respiratory diseases and dysentery and diarrhoea was appreciably enhanced, and a small increase in mortality occurred under the head of plague. It will be noted that, although the rural death-rate in 1931 was considerably lower (—3·02) than the figure for the previous year, the total number of deaths in 1931 was only slightly lower (538) than the corresponding figure in the preceding year.

11. The main features that emerge from an examination of the figures given in the two preceding paragraphs may be summarized as follows :—The urban and rural death-rates in 1931 were both relatively low, but the rural death-rate exceeded the urban death-rate by 4·34 *per mille*. The mortality in urban and rural areas in 1930 and 1931 exhibited no marked change, an increase of 1,172 deaths in the year 1931 in urban areas being associated with a decrease of 538 deaths in rural areas.

The character of the mortality in towns and rural areas also exhibited somewhat similar features in the two years. In both the deaths recorded under the head of respiratory diseases showed a large increase and in both a smaller increase occurred under the head of dysentery and diarrhoea and plague. Again, the deaths due to cholera and small-pox in 1931 showed a decrease in both towns and rural areas, in fact the association of a small increase of “fever” mortality in towns in 1931 with a large decrease under this head in rural areas constitutes the sole point of difference in the character of the mortality in the two years.

12. **Seasonal Incidence of Mortality.**—The monthly incidence of mortality showed no marked variations, the lowest rate being recorded in April (1·75) and August (1·75) and the highest in November (2·70) and December (2·54).

Annual Form No. III.

13. **Age Incidence of Mortality.**—At the instance of the Public Health Commissioner with the Government of India, deaths of infants under one month have been subdivided to show the number of deaths by sexes under one week and over one week, respectively. These data are given in Annual Form No. IV which shows by sexes the mortality at all age-periods from one week to 60 years and upwards. As it was not considered desirable to omit the statistical data regarding mortality by races and religions, at various age-periods, Annual Form V has been revived and used for this purpose.

Annual Form No. IV.

(A) *Deaths not exceeding one month.*—The total number of deaths of children not exceeding one month in age in the year 1931 was 83,220 or 83 per thousand births, as compared with 71,348 (80 per thousand births) in the preceding year. Of these 83,220 deaths, 46,275 (55 *per cent.*) occurred in children



under one week and 36,945 (45 *per cent.*) over one week but not exceeding one month in age. Of the 46,275 children who died within a week of birth 25,415 (55 *per cent.*) were males and 20,860 (45 *per cent.*) were females. Of the 36,945 deaths in children over one week but under one month in age 29,969 (54 *per cent.*) were males and 16,976 (46 *per cent.*) were females. The mortality in this age-group in the year 1931 exceeded the figure of the preceding year by 11,872 (7,447 males and 4,425 females), but as the number of deaths per 1,000 births in this age-group is almost identical in the two years (83 in 1931 and 80 in 1930) it may be assumed that the enhanced mortality in this age-group during the year under review is mainly attributable to the increased number of births (+ 114,730) during the year under review. The only other feature to which reference need be made is the relatively high mortality during the first week of life and the relatively high mortality amongst male children during the first month of life, but as these features are common to all countries they do not call for further comment.

(B) *Children over one month and not exceeding six months.*—The total number of deaths in this age-group in the year 1931 numbered 48,530 (26,322 males and 22,208 females) as compared with 46,891 (25,210 males and 21,681 females). The increase in the year under review was therefore 1,639 (1,112 males and 527 females).

(C) *Children over six months and not exceeding twelve months.*—The total number of deaths in this age-group in the year 1931 was 46,914 (24,801 males and 22,113 females) as compared with 46,600 (24,813 males and 21,787 females). The increase in the year under review was therefore 314, but the male deaths were less by 12 than in the year 1930, the increase in the year 1931 being due to an increase of 326 in the number of deaths of female children.

(D) *Total Deaths in Infants not exceeding one year in age.*—The total deaths in this age group numbered 178,664, of which 96,507 were males and 82,157 were females, as compared with 164,839 (88,851 males and 75,988 females) in the year 1930. The excess in the year 1931 was therefore 13,825 (7,656 males and 6,169 females).

(E) *The Infantile Mortality-Rate.*—The infantile mortality rate, or the number of deaths of infants under one year of age per 1,000 births, was 178·26 or 7·47 less than the corresponding rate in the preceding year. The male infantile mortality-rate was 182·66 in the year under review or 6·48 less than the rate in the previous year, whilst the female infantile mortality-rate in the year 1931 was 173·35 or 8·55 less than the corresponding rate in the previous year.

(F) *The Death-Rate at All Age-periods.*—The death-rate of males and females at all age-periods expressed as the death-rate *per mille* of the population of each age-group as enumerated in February, 1931, is given in Table VIII together with the excess or defect of the female over or under the male death-rate at each age period :—

TABLE VIII.

Age period.			Males.	Females.	Excess or defect of female death-rate.
Under one year	..	..	217·53	189·33	—28·20
1—5	..	..	34·55	32·76	—1·79
5—10	..	..	10·98	11·85	+0·87
10—15	..	..	9·15	10·71	+1·56
15—20	..	..	11·94	14·11	+2·17
20—30	..	..	9·26	11·41	+2·15
30—40	..	..	11·83	15·04	+3·21
40—50	..	..	18·32	19·79	+1·47
50—60	..	..	28·70	31·07	+2·37
60 and upwards	..	..	66·82	72·71	+5·89



14. **The Death-Rate by Religions and Classes.**—The main features, so far as they are available, in respect of the incidence of mortality amongst the chief religions and classes are given in Table IX :—

Annual Form No. V.

TABLE IX.

Age periods.	MUHAMMADANS.		HINDUS.		CHRISTIANS.		OTHER CLASSES.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Under 1 year ..	237·36	181·37	236·06	211·61	156·22	120·41	58·40	37·40
1 year and under 5 years ..	33·46	32·13	37·90	35·65	25·03	20·93	9·55	4·92
5—10 .. ..	11·06	11·85	11·41	12·34	7·92	10·41	2·58	2·99
10—15 .. ..	8·88	10·53	9·94	11·59	7·62	9·99	1·97	2·81
15—20 .. ..	12·03	13·35	12·23	15·72	10·66	11·39	3·29	4·11
20—30 .. ..	9·23	11·19	9·67	12·17	6·54	9·48	3·41	2·95
30—40 .. ..	12·14	15·32	11·70	14·98	11·70	15·46	4·41	6·31
40—50 .. ..	18·37	19·79	18·66	20·07	20·85	25·73	5·40	7·33
50—60 .. ..	28·74	29·90	29·29	33·11	30·26	36·76	11·24	12·99
60 years and upwards ..	65·57	68·49	71·47	81·21	48·07	59·84	16·10	20·47
Total ..	24·83	25·98	26·45	28·88	19·89	21·19	7·27	6·89
	25·36		27·54		20·71		7·09	

From a scrutiny of the figures given in Table IX it will be seen that the death-rate amongst Hindus (including Sikhs) was slightly higher than the Muhammadan death-rate, the figures being 27·54 *per mille* and 25·36 *per mille* respectively. It will also be observed that the female death-rate amongst all classes, except “others”, is higher than the male death-rate, in the case of Hindus the difference being 2·43 *per mille* as compared with 1·15 *per mille* in the case of Muslims. The only other feature calling for comment is the relatively high death-rate of Hindus in the age-period 60 years and upwards, which is indicative of their relatively high longevity. The infant death-rate by religions and classes in the year 1931 and in the previous year, which, being calculated on the infant population in 1931 and 1921, respectively, are not strictly comparable, is shown in Table X :—

TABLE X.

Religion.	1931.		1930.	
	Male.	Female.	Male.	Female.
Muhammadans .. ..	237·36	181·37	207·09	177·72
Hindus .. ..	236·06	211·61	212·20	196·96
Christians .. ..	156·22	120·41	169·02	148·87

The figures given in Table X appear to show that in the year under review the infant death-rate of Muhammadans and Hindus was higher than the corresponding figure of the preceding year and that, in respect of sex, the female infant death-rate of Hindus in both years was appreciably higher than the corresponding rate in the case of Muhammadans.

15. **Railway employees.**—During the year under report 52 births (26 males and 26 females) and 33 deaths (21 males and 12 females) were reported from railway stations not included within municipal limits, as compared with 83 births (55 males and 28 females) and 54 deaths (38 males and 16 females), respectively in the previous year. Of the 33 deaths 16 were due to “all other causes”, 15 to “fevers” and 2 to small-pox.

16. **Europeans and Anglo-Indians.**—During the year under report there were 392 births and 127 deaths amongst Europeans and Anglo-Indians against 522 births and 122 deaths during the previous year. The deaths were



classified as follows :—Smallpox, 1 ; “ fevers ”, 52 ; dysentery and diarrhœa, 9 ; respiratory diseases, 14 ; and all other causes, 51.

17. **Cantonments.**—Amongst the 155,286 persons forming the Civil Indian population of cantonments, 4,473 births and 2,738 deaths were registered, these figures representing an increase of 400 in the number of births and a decrease of 29 in the number of deaths as compared with the previous year. The birth-rate was 29·0 *per mille* and the death-rate 18·0 *per mille*, as compared with a provincial birth-rate of 42·7 *per mille* and a death-rate of 26·0 *per mille*. Of the 2,738 deaths, cholera and smallpox were each responsible for 6 deaths and one death was due to plague. 1,459 deaths were registered as “ fevers ”, respiratory diseases accounted for 551, dysentery and diarrhœa for 101, influenza for 27 and 587 were relegated to the heading of “ all other causes ”.

18. **Summary of the state of Public Health in 1931.**—In the light of the data recorded in the preceding paragraphs it is proposed to essay an appreciation of the state of the public health during the year under review. The task, however, is beset with unusual difficulties as many of the data, for reasons already stated, are not strictly comparable. It is, however, clear that, in spite of the great increase of population during the decade, the number of deaths in the year 1931 was smaller than the number recorded during any of the past 60 years with a few exceptions, whilst in the case of births the figure for the year 1931 has never been equalled and only rarely been approached during the 40 years for which statistics are available. There was also an exceptionally large natural increase in the population and, in spite of the phenomenal number of births, the infantile mortality-rate was low and appreciably lower than in the previous year.

As regards epidemic diseases, plague, cholera and smallpox were conspicuous by reason of their low incidence, whilst as will be shown later, malaria in epidemic form was mild in intensity and circumscribed in distribution. No other great outbreak of disease took place and the sole salient feature calling for comment is the increased mortality, both in towns and rural areas, occasioned by respiratory diseases and dysentery and diarrhœa.

Nevertheless, it may confidently be stated that the year 1931 was one of the healthiest years on record. A reference to Chart I shows that, in spite of great epidemics of plague in 1924 and 1926, the decade 1921—1930 was unusually healthy. The birth-rate, it will be seen, was consistently high and the death-rate, save in the two plague years, was abnormally low. This satisfactory state of affairs is no doubt largely fortuitous and may not be continued indefinitely, but whatever the future may have in store, the scientific knowledge and administrative experience now available, if the one is properly understood and the other wisely directed, justifies the hope that, given sustained effort, the decade that has just opened will witness a progressive improvement in the health and well-being of the people of this province. As compared with other provinces, the Punjab possesses an immense asset in its climate, and it should not therefore be long before it is able to show a higher birth-rate and the lower death-rate than that of any other province of India. In the year 1931, as the figures given in Table XI show, it stood second as regards the birth-rate, but it only took seventh place (out of 10) in respect of its death-rate :—

TABLE XI.

Name of Province.	Birth-rate.	Death-rate.	Difference.
1. Central Provinces .. ..	44·27	35·50	+8·77
2. Assam .. ..	28·13	18·68	+9·45
3. Madras .. ..	35·54	23·72	+11·82
4. United Provinces .. ..	35·60	26·97	+8·63
5. Bihar and Orissa .. ..	33·9	26·6	+7·3
6. North- West Frontier Province ..	30·73	20·25	+10·48
7. Burma .. ..	26·53	17·36	+9·17
8. Bengal .. ..	27·82	22·31	+5·51
9. Bombay .. ..	36·08	23·82	+12·26
10. Punjab .. ..	42·72	25·97	+16·75



### CHAPTER III.—Chief Diseases.

19. **Cholera.**—During the year 1931 cholera was responsible for 706 seizures and 391 deaths, as compared with 2,040 seizures and 1,181 deaths in the previous year. The cholera death-rate was 0·02 *per mille* as compared with 0·06 *per mille* in the previous year and a mean cholera death-rate of 0·23 during the preceding quinquennium. The annual cholera death-rate during the period 1867—1931 is shown in Chart II from a scrutiny of which it will be seen that the province has remained unusually free from cholera during the past four years, but it is not expedient to attach undue significance to this fact, since similar periods of low incidence have occurred during the past 64 years.

During the decade 1921—1930 widespread epidemics of cholera occurred only in two years, *viz.*, in 1921 (19,215 deaths) and in 1927 (11,285 deaths); nevertheless the total mortality during the decade was relatively high, being 42,650, as compared with 40,746 in the decennium 1911—1920 and 38,762 in the previous decade, which facts confirm the statistical induction that unequivocal evidence of any permanent decline of cholera in the Punjab is lacking. As usual, towns suffered more severely than rural areas, the urban death-rate being 0·06 *per mille* as compared with a rural death-rate of 0·01 *per mille*. Cholera prevailed in 32 towns where it was responsible for 215 deaths, the towns chiefly involved being Sialkot (54 deaths); Lahore (35 deaths); Amritsar (25 deaths); and Gujranwala (19 deaths), whilst in rural areas cholera was reported from 110 villages in which, however, only 176 deaths occurred.

The province remained free from infection, apart from 2 mis-reported cases in February, until the end of March, at which time isolated cases of cholera, most of which were regarded as indigenous (although in some instances the patient had recently visited Hardwar) occurred in the districts of Lahore, Karnal, Gurdaspur, Ludhiana, Kangra, Sialkot and Montgomery. The total number of deaths in April was 8, in May 17, and in June, 13. In July 51 deaths occurred in 11 districts, and in August, when the disease reached its maximum intensity, 118 deaths occurred, the districts mainly infected being Lahore (27 deaths); Amritsar (17 deaths); Gujranwala (11 deaths); and Sheikhupura (10 deaths). There were 86 deaths in September and 87 in October, 71 of which were due to an outbreak of cholera in Sialkot city. The disease disappeared early in November and thereafter the province remained free until the end of the year.

From the epidemiological stand-point cholera presented features typical of its behaviour in a “mild” cholera year. It was thus insidious in origin, autumnal in periodicity, and it displayed a predilection for towns. There were no explosive outbreaks, the most severe outbreak during the year being a protracted epidemic in Sialkot city which did not appear to be due to water-borne infection. Anti-cholera measures were conducted on the usual lines and credit is due to the staff of the Public Health Department, by whom 35,421 anti-cholera inoculations were performed, for prompt and vigorous action in stamping out infection and preventing the spread of the disease. Under the conditions prevailing in the year under review, these measures were attended with success, more especially in rural areas, but it is clear that until the conservancy arrangements of urban areas have been vastly improved, the province will continue to be liable to epidemics of cholera, which will defy all attempts to control them.

20. **Smallpox.**—The total number of deaths recorded under this head was 3,646, as compared with 5,341 in the previous year. The smallpox death-rate was 0·16 *per mille* as compared with 0·26 *per mille* in the previous year and a mean death-rate of 0·42 *per mille* in the preceding quinquennium. So far as the decade 1921—1930 is concerned, the mean annual smallpox death-rate was 0·33 *per mille*, as compared with 0·57 *per mille* in the previous decennium and 0·53 *per mille* in the period 1901—1910. A scrutiny of Chart III suggests a steady decline in the frequency and intensity of smallpox epidemics, and it may be noted that the accuracy of this surmise is confirmed by statistical analysis.

All districts in the province were infected, the five districts (rural areas) showing the highest death-rate being Sialkot (0·52); Gujrat (0·37); Lahore (0·36); Hissar (0·33); and Ferozepore (0·27). As usual, the urban death-rate was higher than the rural death-rate, the former being 0·19 *per mille*, as



compared with a rural death-rate of 0·15 *per mille*. Lahore city reported 132 deaths, Sialkot, 28 ; Gujranwala, 33 ; Jalalpur, 26 ; Dajal, 24 ; and Jullundur, 17.

As shown in the diagram attached to Chart III the disease occurred in every month of the year, the maximum mortality, as usual, being registered in the months of May and June.

As regards sex, the female death-rate (0·17 *per mille*), as usual exceeded the male death-rate (0·14 *per mille*), whilst, in respect of age distribution, 1,045 deaths (28 *per cent.*) occurred amongst children under one year of age, 1,828 (50 *per cent.*) in children over one and under 10 years and 773 (22 *per cent.*) in persons over 10 years of age, the corresponding figures for the previous year being 29, 52 and 19 *per cent.*, respectively.

The steps taken to control smallpox by means of vaccination are detailed in chapter IV, but attention may be called here to Chart VII, a scrutiny of which permits of the conclusion that the steady increase in the number of primary and revaccinations during the past seven years is directly associated with the decline in the smallpox death-rate during recent years. It is also clear that the statistics given above indicate the need of the more complete vaccination of infants under 1 year of age, on which account endeavours are now being made to vaccinate infants as soon as possible after they have reached the age of 40 days. The fact that about 50 *per cent.* of the smallpox mortality occurs in children over 1 year of age and under 10 years also stresses the importance of carrying out revaccination between the ages of 7—10 years, for which purpose special arrangements have been made. Finally, the relatively high female death-rate points to the necessity of special efforts to improve the vaccinal condition of the female population. It is hoped that the action that has been taken to give effect to these desiderata will be the means, in time, of reducing still further the mortality all of which is preventable, occasioned by this scourge. For many years to come, however, the need of special hospitals in all large cities for the isolation and treatment of smallpox will continue, but, except in the case of Lahore and Simla, none of the large towns are at present provided with properly staffed and equipped Smallpox hospitals.

**21. Plague.**—During the past two years plague has been confined to three districts and thus, temporarily at any rate, it has ceased to possess its former importance as a cause of mortality in the Punjab. The total number of deaths from plague in British districts during the year 1931 was 1,150 (522 males and 628 females), as compared with 554 in the preceding year and a mean of 25,525 *per annum* during the preceding quinquennium. The plague death-rate was 0·05 *per mille* (0·04 males and 0·06 females), as compared with 0·03 *per mille* during the preceding year and a mean of 1·09 *per mille* during the preceding five years. In the twelve Punjab States only 1 case—an imported case—occurred during the year.

The infected area, as last year, comprised the districts of Hoshiarpur, Sialkot and Gurdaspur, in which 627, 375 and 141 deaths respectively were reported. The plague death-rate of these districts was 0·61, 0·39 and 0·15 *per mille*, respectively, as compared with 0·07, 0·25 and 0·31 *per mille* in the preceding year. As last year, the disease was more severe in rural than in urban areas the rural plague death-rate being 0·05 *per mille*, as compared with a urban death-rate of 0·04 *per mille*. Only two towns Sialkot (68 deaths) and Mukerian (32 deaths) were infected, whilst the number of registration circles from which plague was reported in these districts was 28 as compared with 10 in the previous year. The number of cases and deaths by weeks is depicted in Chart IV from a scrutiny of which it will be seen that April was, as usual, the month of maximum mortality. In other respects the seasonal incidence was normal. With the onset of the hot weather the disease rapidly disappeared, but it again reappeared towards the close of the year, with the result that 22 deaths occurred in Hoshiarpur district in December 1931 and 6 deaths in Sialkot and 11 deaths in Gurdaspur. The salient features of the year therefore were the persistence of plague in a small number of localities in the submontane tract, where it displayed low intensity and feeble diffusibility. In no previous quinquennium since the year 1901 has the plague mortality been so low as in the years 1927—1931, but during the decade 1921—1930 two major epidemics of plague, associated with a mortality



of 251,261 and 108,287 respectively, occurred in the years 1924 and 1926; nevertheless, the mean annual plague mortality during the decade 1921—1930 was 47,693, as compared with 63,387 in the preceding decennium and 202,522 in the period 1901—1910. It may well be therefore that plague is definitely on the down-grade, but it is, as yet, not expedient to express a decided opinion, since the meteorological conditions during the past few years have been unusually unfavourable to plague epidemics, whilst it is known that rat epizootics unassociated with human plague, continued to occur during the year 1931 in many parts of the province. On the other hand a recent investigation conducted by the Director, Haffkine Institute, Bombay, suggests that Punjab rats from the plains have acquired a high resistance to infection, whilst those from the tracts that have never experienced a plague epidemic are still highly susceptible, a result which, if confirmed, will justify an optimistic view in regard to the future history of plague in this province. Anti-plague measures were conducted on the usual lines and call for little comment, intensive rat destruction by poisoning and trapping being carried out during the off season in potential endemic foci and in the villages in the vicinity, whilst in the presence of plague, anti-plague inoculation,—62,468 persons were inoculated—evacuation of infected houses prior to fumigation, and the disinfection of their contents, being carried out. The reduction in the rat population by poisoning and trapping is unfortunately only temporary, and it is not unfortunately permissible to regard the decline of plague in recent years as mainly due to the rat destruction campaigns carried out in the past, since the disease has also completely disappeared from the Punjab States where no attempt has been made to reduce the rat population.

22. **"Fevers."**—The deaths registered during the year under the head of "fevers" numbered 416,974, as compared with 422,377 in the previous year. The "fever" death-rate was 17·77 *per mille* (17·14 males and 18·53 females), as compared with 20·59 *per mille* in the previous year and a mean annual death-rate of 16·50 *per mille* during the previous quinquennium.

It is usual for the rural "fever" death-rate to exceed the urban death-rate, but in the year under review the excess was exceptionally great, the urban death-rate being 10·13 *per mille*, as compared with a rural death-rate of 18·95 *per mille*. As compared with the previous year, the number of "fever" deaths in urban areas showed an increase of 792, whilst in rural areas there was a decrease of 6,195 deaths under this head.

The five districts (rural areas) showing the highest "fever" death-rate were Muzaffargarh (25·26), Mianwali 25·02, ; Gujranwala 23·85, ; Dera Ghazi Khan 22·39, and Karnal 22·35, whilst the five lowest death-rate were recorded in the districts of Kangra (14·92) ; Gujrat (15·31) ; Ambala (16·18) ; Jhang, (16·45) ; Hissar and Rawalpindi (16·72).

In regard to seasonal incidence, the highest mortality was recorded in the months of November, the total deaths being 45,281 as compared with 40,023 in the previous year.

23. (a) **Malaria.**—Only a small but variable proportion of the deaths recorded under the head of "fevers" is due to malaria, but the mortality occasioned by epidemic malaria can be roughly determined by calculating the excess over normal of the "fever" mortality in the months of October and November. On this basis it is estimated that epidemic malaria was responsible for approximately 30,000 deaths in the year under review, which thus indicates that nothing in the nature of a severe and widespread epidemic occurred. It is, in fact, found by studying the "epidemic figures" of registration circles and the spleen-rate statistics that the epidemic was mild in intensity and restricted in distribution, the districts mainly involved being Lahore, Sheikhpura, Gurdaspur, Gujranwala, Sialkot, Amritsar, Ferozepore, Ambala and Hissar.

In regard to preventive measures, the scheme for the widespread distribution of quinine described in the annual report for the year 1929 was again put into operation, and 1,458 lbs. of quinine and 244 lbs. of cinchona febrifuge were distributed in rural areas by the Public Health staff through the agency of 2,589 dépôts and 4,048 sub-dépôts. Medicinal treatment is, however, at the best, merely palliative and it is becoming increasingly evident that the true solution of the problem of epidemic malaria lies in measures designed to prevent the prolonged flooding



of low-lying tracts. This fact was well illustrated in a low-lying part of Lahore district, where, owing to obstructions occasioned by canal and road embankments, a large tract was submerged for several months with the result that not only was a severe epidemic of malaria precipitated, but many villages were destroyed and valuable crops were ruined. This matter was brought to the attention of the Water-logging Board, under whose auspices land-drainage schemes and anti-waterlogging measures are now conducted, and it is satisfactory to be able to state that a scheme costing Rs. 35,000 has been sanctioned which will provide for the efficient drainage of this tract.

During the past decade, and more especially during the past five years, large tracts of land in the districts of Amritsar, Lahore, Sheikhpura, Gujranwala, Sialkot, Shahpur, Ludhiana, Karnal and Gurgaon have been drained by the Irrigation Department acting under the general direction of the Water-logging Board with the result that many thousands of acres which were formerly water-logged and highly malarious have been rendered, without resort to anti-mosquito measures, relatively, if not absolutely, prosperous and salubrious. The precise value, from the point of view of health, attaching to these great schemes of "bonification" is well illustrated in the case of the experimental Reclamation Farm at Chakanwali, regarding which a special report will shortly be published. Apart from the action taken to control water-logging, to prevent flooding (and thereby reduce the liability to periodical epidemics of malaria) and open up blocked drainages, the Waterlogging Board, of which the Director of Public Health is a member, has laid down the principles which should be observed in future by all departments concerned in the construction of canals, roads and railways, and it is satisfactory to be able to record that these principles have been accepted by Government and were promulgated to all concerned during the year under review. In rural areas therefore malaria has been tackled with marked success, mainly from the stand-point of an economic problem, and there is every reason to believe that by means of drainage operations, in association with the widespread distribution of quinine, great progress has been made during the decade in combating both endemic and epidemic malaria in rural areas.

It may be added that apart from drainage works properly debitable to the Irrigation Department, the capital and recurring expenditure incurred during the year 1930-31 on drainage operations and debitable to "Public Health" was Rs. 2,23,591 and Rs. 1,23,979, respectively.

In urban areas progress has been less evident, but it is scarcely reasonable to expect that municipal committees, who fail to provide essential sanitary services should be willing to enforce the provisions of the Municipal Act in respect of anti-mosquito measures.

**24. (b) Relapsing Fever.**—Except for a few sporadic cases, none of which ended fatally, in the districts of Amritsar (10), Sheikhpura (3) and Montgomery (14), relapsing fever, which sometimes exercises an important influence on the "fever" mortality, was conspicuous by its absence.

**25. (c) Influenza.**—Deaths due to influenzal pneumonia are either registered under the head of "fever" or of respiratory diseases and it is probable that the relatively high mortality under both these heads during the months of January, February and December, 1931, was due to this cause. A mild form of influenza, and influenzal colds were widely prevalent in the plains during the winter but only 6,740 cases and 323 deaths are definitely known to have occurred in 10 districts of the province. It now seems clear that influenza must be regarded as an endemic disease of the Punjab and that it is apt to prevail with variable intensity during the winter in the plains and during the spring and summer in the hill tracts.

**26. Dysentery and Diarrhoea.**—The total number of recorded deaths from dysentery and diarrhoea during the year under review was 14,284, as compared with 12,247 in the previous year—an increase of 2,037. The death-rate was 0·61 *per mille* (0·58 males and 0·64 females), as compared with 0·60 *per mille* in the previous year and a mean annual death-rate of 0·50 *per mille* during the preceding quinquennium. The death-rate under this head in urban areas was more than twice the corresponding rate in rural areas, the figures being 1·22 *per mille* and 0·51 *per mille*, respectively. The death-rate under this head of the 10 large towns of the province was as follows:—Lahore, 1·63; Amritsar, 0·54; Jullundur,



1·63 ; Ferozepore, 2·85 ; Ludhiana, 1·25 ; Ambala, 0·60 ; Sialkot, 1·29 ; Lyallpur, 0·19 ; Rawalpindi, 1·29 ; and Multan, 6·11. The most striking feature in regard to rural areas is the high incidence of bowel complaints, more especially in the autumn, in the districts of Kangra, Simla, Rawalpindi and Gurdaspur, the cause of which is somewhat obscure. In urban areas the prevalence of diseases of the alimentary tracts is directly ascribable, as stated in previous reports, to defective conservancy arrangements, which it is to be feared cannot be remedied until the Municipal Act has been amended and the Director of Public Health has power to intervene effectively when local bodies fail in their duty as custodians of the public health.

**27. Respiratory diseases.**—Under this composite head 55,317 deaths were recorded, as compared with 51,678 in the previous year. The respiratory disease death-rate was 2·36 *per mille* (2·38 males and 2·33 females), as compared with 2·52 *per mille* during the preceding year and a mean annual death-rate of 2·31 *per mille* during the preceding quinquennium. The urban death-rate was, as usual, much higher than the rural death-rate, the figures being 4·59 *per mille* and 2·02 *per mille*, respectively. The respiratory disease death-rate of the 10 large towns of the province was as follows:—Lahore, 5·21 ; Amritsar, 8·43 ; Ferozepore, 9·74 ; Jullundur, 6·49 ; Ludhiana, 5·03 ; Ambala, 4·56 ; Sialkot, 6·28 ; Lyallpur, 3·19 ; Rawalpindi, 5·57 ; and Multan 9·95.

In regard to rural areas, the five districts exhibiting the highest death-rate were Ambala (7·62) ; Kangra (7·08) ; Simla (5·16) ; Sialkot (3·61) ; and Gurdaspur (3·01).

**28. Pulmonary Tuberculosis.**—The chief cause of the high respiratory disease death-rate in urban areas is undoubtedly the white plague, but unfortunately, although the disease is compulsorily notifiable in municipal towns, it is not possible to state with precision the incidence of the disease either in towns or in rural areas. It will not be possible to remedy this serious defect until fees, as well as penalties, are attached to notifications of infectious diseases. The present uncertainty in regard to the incidence of pulmonary tuberculosis in Punjab cities will, it is hoped, in some measure be rectified in the near future so far as Lahore city is concerned, as, thanks to a grant received by the Punjab Branch of the Red Cross Society from the King George's Thanks giving Fund, a comprehensive study of the incidence of all forms of tuberculosis, which should be the means of throwing valuable light on its incidence in urban areas and on the economic and environmental conditions with which it is associated, has recently been started in Lahore city. But if the precise incidence of the disease is unknown, the measures by which it can be controlled and eventually eradicated are well known. So far as prevention is concerned, these measures embrace the remedying of glaring sanitary defects in respect of conservancy and drainage, the removal of obstructions that interfere with the admission of light and air and last but not least the adoption of an enlightened policy on the part of Municipal Committees in respect of the reconstruction of old buildings and of town development and town planning.

**29. Diphtheria.**—A contributory cause of the increase in the death-rate from respiratory diseases was the unusual prevalence of diphtheria. Sporadic cases of diphtheria occur every year, more especially in the hills and in the northern districts of the province, but this year the disease assumed epidemic proportions in Rawalpindi city and district in the month of July, 1931. In the Rawalpindi city 141 seizures and 28 deaths from diphtheria were reported during the month of July, August and September, whilst the total number of seizures and deaths were 206 and 42, respectively. In Rawalpindi district 80 seizures and 39 deaths occurred in 31 villages, of which 69 seizures and 30 deaths took place in the months of September and October. The disease chiefly attacked children under 5 years of age and in this age-group the case-mortality was 58·14 *per cent*. The outbreak in Rawalpindi city was vigorously combated by the Municipal Medical Officer of Health, who, with the aid of funds promptly placed at his disposal by the Municipal Committee, arranged for the examination of throat-swabs, the immunization (passive immunity) of contacts and the isolation and treatment of the sick. Active immunization was not largely employed, nor was much use made of the Schick test. The outbreak emphasized the need in all large cities of a fully equipped Infectious Diseases Hospital under the charge of a whole-time Medical Officer and of the provision of laboratory facilities for bacteriological examinations.



In the district the treatment of the sick, as well as the prevention of the disease, was undertaken partly by the medical staff of dispensaries and partly by the Public Health Department, at whose disposal the District Board placed a sum of Rs. 1,500. The specific treatment comprised the administration of diphtheria anti-toxin. Contacts were passively immunized and in some villages all the children were passively immunized, the cost of the anti-toxin being met by public subscription.

30. **Injuries.**—Under the head of injuries, which includes suicides, wounds and accidents, snake-bite and killed by wild animals, and rabies, 6,110 deaths (0·26 *per mille*) were recorded, as compared with 6,103 deaths in the previous year. The deaths were classified as follows:—

Suicides 272 (137 males and 135 females), it is noteworthy that in rural areas 128 females committed suicide as compared with 105 males, whilst in towns 39 persons committed suicide, of whom only 7 were females.

Wounds and accidents accounted for 5,014 deaths, 4,365 (87 *per cent.*) of which occurred in rural areas, as compared with 649 (13 *per cent.*) in towns. The number of deaths from wounds was 690 (545 males and 145 females), whilst accidental deaths numbered 4,324 (2,515 males and 1,809 females), as compared with 4,351 (2,492 males and 1,859 females) in the previous year.

Snake-bite was alleged to be responsible for 540 deaths and 168 deaths were attributed to injuries inflicted by wild beasts, 96 *per cent.* of these fatalities occurring in rural areas.

The number of deaths due to rabies was 116 (93 males and 23 females), 82 of which occurred in rural areas and 34 in towns.

31. **All other causes.**—The total number of deaths registered under this head was 111,344 (59,541 males and 51,803 females) as compared with 109,101 in the previous year. This figure represents a death-rate of 4·75 *per mille*, as compared with 5·32 during the previous year and a mean death-rate of 4·49 *per mille* during the preceding quinquennium.

(a) *Ankylostomiasis.*—Owing to financial stringency it was unfortunately not possible to carry out the proposed scheme for combating ankylostomiasis, which disease there is now reason to believe is widely diffused, more especially in the districts in the sub-montane tract. It is hoped that the scheme, in modified form, will be put into operation during the current year, but it is clearly impossible for medical officers in charge of dispensaries to diagnose and to treat the disease until they have been provided with the microscopes necessary for diagnostic purposes and the specific drugs by which alone it can be cured. In the meantime an illustrated pamphlet and lantern lecture on ankylostomiasis has been drawn up and will shortly be circulated to officers of the Medical and Public Health Departments.

(b) *Leprosy.*—Leprosy surveys carried out in Kangra district, with the aid of funds provided by the British Empire Leprosy Relief Association, have been the means of bringing to light the widespread prevalence of this disease in Kangra district. During the year under review the special leprosy officer (Dr. Jaikaria, M. B., B. S.) surveyed 956 villages in this district with the result that 444 lepers were discovered in 199 villages. Furthermore, with the approval of the medical authorities, leprosy clinics were opened at seven dispensaries and the medical officers in charge were provided, at the expense of the British Empire Leprosy Relief Association, with the necessary drugs and equipment. The gratifying measure of success attending the survey-treatment-propaganda party under Dr. Jaikaria and the remarkable improvements that follow a few weeks' treatment encourages the hope that the eradication of this loathsome disease may be looked for within a measurable period of time.

(c) *Rabies.*—During the year 1931 the number of patients from the Punjab who underwent anti-rabic treatment at the Pasteur Institute, Kasauli, was 2,994 (119 Europeans and 2,875 Indians) as compared with 2,651 during the previous year. Twelve deaths from hydrophobia occurred amongst the Indians. In addition to the above 2,320 patients (221 Europeans and 2,099 Indians) underwent anti-rabic treatment at the Lahore Centre, whilst 212 (109 Europeans and 103 Indians) were treated at the Rawalpindi Centre.



There are thus 3 anti-rabic treatment centres in the Punjab, at Kasauli, Lahore and Rawalpindi. The vaccine used at these Centres is obtained from the Pasteur Institute Kasauli which, in accordance with the new procedure, receives a grant from the Punjab Government at the rate of Rs. 10 per patient.

#### CHAPTER IV.—Vaccination.

(THIS CHAPTER AND ALL STATISTICAL TABLES CONNECTED THEREWITH REFER TO THE PERIOD APRIL 1ST, 1931—MARCH 31ST, 1932.)

**32. Vaccination Staff.**—There was no change in the administrative policy in respect of vaccination during the period under review, but owing to financial stringency, local bodies were not in a position to add to their expenditure and in consequence little progress was possible in bringing thanawar system into full operation. The number of Superintendents of Vaccination was increased by one, two additional Superintendents being engaged by the District Board, Sialkot, whilst the District Board, Ludhiana, reduced one post. The number of vaccinators employed by District Boards showed a net increase of 17, an increase of 8 in the district of Lahore, of 4 each in Gujranwala and Jullundur districts; 3 in Attock; 2 each in Ferozepore, Sialkot and Sheikhpura, and one each in Simla, Ludhiana, Amritsar, Rawalpindi and Multan, being associated with a decrease of 4 each in the districts of Lyallpur and Dera Ghazi Khan, 2 in Gurgaon; and one each in Shahpur, Montgomery and Jhang. No change took place in the strength of the special (provincial) staff of vaccinators during the year. The average number of vaccinations performed by each vaccinator underwent a slight decline, being 3,237, as compared with 3,356 in the preceding year and 3,084 in the year 1929-30.

**33. Number of Vaccinations.**—The total number of vaccinations performed by all establishments was 1,718,980 as compared with 1,729,082 in the previous year and 1,588,729, in the year 1929-30. There was thus a small decrease of 10,102 operations in the year under review as compared with the previous year. The number of primary vaccinations, however, was increased by 34,849, the figures being 903,217 in the year under review, as compared with 868,368 in the previous year. The number of re-vaccinations showed a slight falling off, being 815,766 as compared with 860,714 in the preceding year. The annual number of vaccinations performed in the Punjab since the year 1885-86 together with the number of operations *per mille* of population is shown in Chart VII. From a scrutiny of this chart it will be seen that the number of primary operations performed during the year under review has never before been equalled. It, in fact, exceeded by 32,309 the previous record figure of the year 1929-30. The number of re-vaccinations in 1931-32, on the other hand was smaller by 44,948 than the figure of the previous year, nevertheless it was 97,945 in excess of the number performed in the year 1929-30, which at that time held the record. It will thus be seen that the substantial progress made during recent years in extending primary and re-vaccination was maintained during the year under review, the increases in the number of primary operations being particularly gratifying.

So far as the decade ending on March 31st, 1931, is concerned, the annual number of persons successfully vaccinated (primary vaccination) was 662,778, as compared with 563,995 in the year 1920-21, and a mean of 507,652 during the period 1867—1919. But as shown in Chart VII, it was not until the year 1923-24 that an appreciable increase in the number of vaccination operations began to occur, and it is therefore instructive to compare the number of vaccinations performed during the last two quinquennia. The total number of vaccinations performed during the period from 1921—25 was 4,874,605, as compared with 7,356,941, during the past five years. In other words the annual average number of vaccinations performed during the past five years exceeded by 496,467 the number performed during the preceding quinquennium. This remarkable improvement in vaccination is almost solely attributable to the improved arrangements for carrying out vaccination consequent upon the re-organization of the Public Health Department. And if officers of the Public Health Department had no other achievements to their credit, their work in connexion with vaccination should suffice to justify their existence. - The influence of vaccination on the



incidence of smallpox is shown in Chart VIII, where the smallpox death-rate of each district and the proportion of the population successfully vaccinated are contrasted.

(1) *District Board Staff*.—The total number of operations performed by the vaccination establishments of District Boards and Municipal Committees was 1,634,527, as compared with 1,615,524 in the previous year. The number of primary and re-vaccinations was 871,256 and 763,271, respectively which represents an increase of 36,227 in the number of primary operations and a decrease of 17,224 in the number of re-vaccinations.

In the case of primary operations all districts showed an increase as compared with the previous year, the most notable being an increase of 12,747, in the district of Multan. The districts showing a decrease, as compared with the previous year, were Hissar (—1,460) ; Gujranwala (—18) ; and Dera Ghazi Khan (—36,439). As regards re-vaccination, 18 districts showed an increase as compared with the previous year, the most notable being Ferozepore (+37,353), whilst, of the 11 districts that showed a decrease, Dera Ghazi Khan again achieved an unenviable notoriety by reason of a decrease of 62,410 as compared with the previous year. The decline in the total number of vaccinations in this district during the year under review was, therefore, 98,849.

(2) *Municipal Staff*.—In Municipal towns the total number of vaccinations was 161,159, as compared with 167,575 in the previous year, and 172,948 in the year 1929-30.

The number of primary operations was 91,043, as compared with 83,508 in the previous year, and 85,411 in the year 1929-30, whilst the number of re-vaccinations was 70,116, as compared with 84,067, and 87,537 in the two preceding years.

There was thus a small increase in the number of primary operations in association with a larger decline in the number of re-vaccinations. The administrative difficulties in connexion with carrying out vaccination in large cities are no doubt formidable, but in spite of the undue prevalence of smallpox in towns, Municipal Committees are not yet fully alive to their responsibilities in this matter and their Health Officers have, in consequence, with few exceptions, made disappointingly little progress in improving and perfecting the routine arrangements for carrying out vaccinations in their respective towns. It is satisfactory, however, to be able to record that in the presence of an epidemic of smallpox rapid progress is made both in primary and re-vaccination, but this fact merely serves to suggest that sustained effort is lacking during normal times.

(3) *Special Staff*.—The total number of operations performed by the Special Staff (provincial) during the year under review was 54,992, as compared with 76,836 during the previous year, and 80,574 in the year 1929-30.

The number of primary operations was 25,130 as compared with 22,019 in the previous year, and 23,206 in the year 1929-30, whilst the number of re-vaccinations was 29,862, as compared with 54,817 and 57,368 in the two preceding years. The increase of 3,111 in the number of primary operations is satisfactory, and the large decline in the number of re-vaccinations is ascribed to the absence of small-pox in epidemic form.

(4) *Dispensary Staff*.—During the year under review 3,504 operations were performed by medical officers in charge of dispensaries of which 1,678 were primary and 1,826 were re-vaccinations. The figures vary little from year to year—and it is clear that, although this method of conducting vaccination is peculiarly suited to the needs of small towns, it does not appeal either to the local authorities or to their medical officers.

(5) *Cantonment Staff*.—In cantonments that employ their own vaccinators the total number of operations performed during the year was 25,965 (5,158 primary and 20,807 re-vaccinations), as compared with 28,519 (7,016 primary and 21,503 re-vaccinations) in the previous year.

(6) *Railway Medical Staff*.—The total number of operations performed during the year by the medical staff of the North-Western Railway was 1,227, as compared with 3,017 in the previous year and 3,221 in the year 1929-30.



The number of primary operations was 353 as compared with 548 in the previous year, whilst the number of re-vaccinations during the year under review was 874, as compared with 2,469, in the previous year, and 2,108 in the year 1929-1930.

**34. The Cost of Vaccination.**—The total expenditure on vaccination, including the cost of the Vaccine Institute, during the year under review was Rs. 3,44,216-12-5, as compared with Rs. 334,671-15-4 in the previous year. The increase of Rs. 9,544-13-1 is mainly due to the increased number of vaccinators employed by local bodies.

The cost of each successful vaccination carried out by all establishments was Re. 0-4-4 as compared with Rs. 0-4-2 in the previous year, whilst in the case of vaccinations performed by the vaccination staff of local bodies and the cantonment staff the cost of each successful operation was Re. 0-3-7, as compared with Re. 0-3-5 in the previous year.

The average cost of each successful vaccination carried out by the special staff (provincial) was Rs. 0-13-8 as compared with Re. 0-11-1 in the preceding year. The increase is due partly to the smaller number of vaccinations performed during the year and partly to the fact that the post of Assistant Director of Public Health, Vaccination, was held by an I.M.S. officer during eight months of the year.

**35. Success of Vaccination.**—The potency of the vaccine lymph maintained its high standard. The success-rate reported by all establishments was 98·44 *per cent.* in the case of primary vaccinations and 67·53 *per cent.* in the case of re-vaccinations, as compared with 97·63 *per cent.* and 68·80 *per cent.*, respectively, in the previous year.

The results reported by the various establishments were as follows :—

				<i>Primary</i>	<i>Re-vaccination.</i>
				<i>Vaccination.</i>	
District and Municipal Staff..	..	..	..	98·46	67·97
Special Staff ..	..	..	..	97·55	50·84
Dispensary Staff ..	..	..	..	90·62	84·17
Cantonment Staff ..	..	..	..	98·23	81·41

**36. Vaccination Inspections.**—The number of vaccinations inspected by Assistant Directors of Public Health was 8,527 primary and 1,652 re-vaccinations, the percentage of success being 94·83 *per cent.* and 61·74 *per cent.* respectively.

Civil Surgeons and District and Municipal Medical Officers of Health inspected 130,604 primary vaccinations and 92,578 revaccinations, as compared with 123,911 primary and 88,566 re-vaccinations during the preceding year, the reported success-rate in the year under review being 97·79 *per cent.* and 57·25 *per cent.* in the case of primary and re-vaccinations, respectively. Superintendents of Vaccination inspected 395,308 primary vaccinations and 278,377 re-vaccinations, the success-rate being 97·76 *per cent.* and 57·47 *per cent.*, respectively, whilst the success-rate reported by vaccinators was 98·44 *per cent.* and 67·53 *per cent.*, respectively.

**37. Vaccination in Indian States in the Punjab.**—No information is available in regard to the progress of vaccination in Indian States, but the reports received regarding the number of vaccinations performed in the States which entertain their own vaccinators are summarized in Table XII.

TABLE XII.

State.	NUMBER OF VACCINATIONS.		SUCCESS-RATE.	
	Primary.	Re-vaccination.	Primary.	Re-vaccination.
Patiala .. .. .	62,428	48,235	99·19	76·98
Kapurthala .. .. .	8,640	1,662	92·66	58·48
Faridkot .. .. .	5,856	1,985	98·89	50·94
Jind .. .. .	11,167	5	98·99	60·00
Bahawalpur .. .. .	25,957	397	99·79	87·27
Nabha .. .. .	9,394	1,345	89·07	70·64



38. It is satisfactory to be able to state that District Boards freely made use of their powers to apply the Vaccination Law Amendment Act to areas under their jurisdiction. During the year under review the Act was extended to the whole of area subject to the authority of the District Board of Gurdaspur, Kangra, Simla, Rawalpindi, Lyallpur and Jhang whilst it was applied to 39 zails in Rohtak district and to local areas in the districts of Gujranwala, Sheikhupura and Jullundur.

## CHAPTER V.—Urban and Rural Sanitation.

### URBAN SANITATION.

39. The sanitary works under construction and completed during the year 1931 are enumerated in the annual report of the Superintending Engineer, Public Health Circle, which is reproduced in Appendix I. It will be seen that 31 sanitary projects were undertaken on behalf of local bodies, whilst 4 preliminary projects and 9 detailed projects were prepared by executive engineers of the Public Health Circle and 10 by the Superintending Engineer.

This list of new sanitary works, under construction or contemplated, must be regarded as satisfactory in view of the financial stringency, and it may be taken as evidence of the keen desire of the public for the provision of sanitary amenities.

Unfortunately, however, a paraiseworthy desire for improvements is not associated with an equal wish to maintain these costly sanitary works in good order after they have been completed and one of the problems which has engaged the attention of the Sanitary Board during the year has reference to the adoption of a procedure whereby the sanitary works of local bodies may be maintained in an efficient manner.

*Income and Expenditure.*—The total income of municipal committees (107 in number), after excluding opening balances and extraordinary receipts and suspense account, was Rs. 1,31,40,520 as compared with Rs. 1,39,23,431 in the previous year.

The expenditure incurred on public health measures, including sums received as grants-in-aid from Government, amounted to Rs. 39,65,821-2-0 or approximately 30·2 per cent. of their ordinary income, as compared with Rs. 45,44,552 in the previous year. The cost per head of public health measures was Rs. 2-2-5 as compared with Rs. 2-8-6 in the previous year.

The details in respect of the expenditure upon public health measures during the year 1930-31 and during the previous year is shown in Table XIII :—

TABLE XIII.

				1929-30.	1930-31.
				Expenditure.	Expenditure.
				Rs.	Rs.
1.	Water Supply	..	..	14,10,628	9,53,896
2.	Conservancy	..	..	18,00,004	15,48,556
3.	Drainage	..	..	5,30,911	6,44,619
4.	Public Health Staff	..	..	2,38,738	2,68,614
5.	Vaccination	..	..	44,509	47,136
6.	Plague and other anti epidemic measures	..	..	51,262	62,577
7.	Markets and slaughter houses	..	..	50,001	52,250
8.	Registration of Births	..	..	12,372	16,551
9.	Burial and Burning of Paupers	..	..	16,267	14,617
10.	Infectious Diseases Hospitals	..	..	42,175	47,816
11.	Other Sanitary Equipment	..	..	27,698	Nil.
Total				4,224,565	3,616,632



From a scrutiny of figures given in Table XIII, it will be seen that a decrease of expenditure occurred mainly under the heads of water supply and conservancy, whilst most of the other heads show a small but appreciable increase. The most striking feature is the small and wholly inadequate expenditure under the head of Infectious Diseases Hospitals.

The total income of Small Towns—115 in number—excluding opening balances and extraordinary receipts, was Rs. 9,00,417, whilst their expenditure on public health measures, including grants-in-aid, was Rs. 245,206 or 27·23 per cent. of income.

(1) *Water-Supply*.—A statement showing the receipts and expenditure incurred in connexion with municipal water works is shown in Appendix II, from a scrutiny of which it will be seen that the expenditure incurred in all the 23 towns, with 15 exceptions, equipped with a piped water supply exceeds the income received from the sale of water. This state of affairs is the more unsatisfactory since in almost all cases at least half the capital cost of the water-works was met by a grant-in-aid from Government. The remedy is obvious—the institution of a water-tax and the metering of private house connections—but in spite of the urgent and repeated exhortations, Municipal Committees are unwilling to take a step which they fear will render them unpopular with their constituents.

(2) *Conservancy*.—The need of a complete reorganization of the conservancy arrangements in towns has been stressed in previous reports, but partly owing to financial stringency, but even more to the widespread prevalence of the conditions portrayed in Mr. Dobson's report on Lahore Municipality, no appreciable improvements have been effected.

The sum realized from the sale of sullage and manure, given an honest and efficient administration, should go a long way to meet the cost of the public health establishment, but this desideratum was by no means met. In the case of 9 towns in charge of whole-time Medical Officers of Health, the receipts from this source amounted to Rs. 1,54,473-9-0 only, but in view of the fertilizing value of this material and the ready sale of the produce, it would not be unreasonable to expect a return of ten times this figure.

The number of acres of land irrigated by sewage in the 9 towns in charge of whole-time Municipal Medical Officers of Health was 1,453·13 as compared with 2,067·76 acres in the previous year.

(3) *Slaughter Houses*.—Many slaughter houses are of an antiquated pattern and some of those recently erected are not entirely satisfactory, but whilst they were usually maintained in a sanitary condition, the arrangements for the disposal of offal, which is usually buried *in situ*, are, in the absence of an incinerator, for the most part unsatisfactory.

Slaughter house fees constitute a legitimate source of income, and if municipal committees levied adequate fees, sufficient funds would be available not only to meet the annual maintenance charges, but also the cost of extensions, renewals and repairs.

(4) *Infectious Diseases Hospitals*.—The need in all large towns of fully equipped hospitals for the isolation and treatment of persons suffering from infectious diseases, more especially cholera, small-pox and diphtheria is now well recognized, but only four towns are at present provided with such hospitals.

The new Infectious Diseases Hospital at Lahore, which has attached to it a separate hospital for smallpox, has recently been the subject of adverse criticism mainly on account of its site, but it is clear that the main defect lies in faulty construction, inadequate staff and poor equipment.

The towns provided with Infectious Diseases Hospitals are Lahore, Simla, Amritsar and Lyallpur, and the expenditure incurred on these hospitals during the year 1931-32 was Rs. 24,756, Rs. 8,185-2-0, Rs. 13,064-1-0 and Rs. 1,811-8-3, respectively. In the Punjab Municipal Amendment Bill, now before the Legislative Council, a provision has been inserted giving Government the powers to require Municipal Committee to maintain an Infectious Diseases Hospital.

#### RURAL SANITATION.

40. In view of the fact that 87 per cent. of the inhabitants of the Punjab live in villages, the health and prosperity of the rural population is a



matter of special importance. Many of the measures taken to promote the health of this section of the population, have been detailed in previous paragraphs. Thus, in connexion with small-pox, the steady improvement in vaccination in rural areas, as the result of the introduction of the thanawar system, has been mentioned, as also has the vigorous action taken by District Medical Officers of Health to suppress outbreaks of cholera and plague in rural areas. In connection with malaria the improvement in health that has resulted from the provision of land-drains and storm-water channels in tracts liable to floods is referred to in paragraph 23, where reference is also made to the scheme for the distribution of quinine in rural areas.

In regard to village water-supplies, financial assistance was freely given by the Rural Sanitary Board for the purpose of increasing the water-supply in villages located in waterless tracts, and by the Urban Sanitary Board, in providing piped-water supplies at villages where important village fairs are held. In connection with maternity and child welfare work, District Boards were given assistance to enable Maternity and Child Welfare Centres to be opened and village dais to be trained.

In this paragraph reference will only be made to that aspect of rural hygiene which is concerned with village sanitation. As the result of tour in the Nili Bar Colony, a memorandum was drawn up and circulated to Commissioners, Deputy Commissioners, Assistant Directors of Public Health and District Medical Officers of Health, detailing, in the light of modern conditions, the principles that should, if possible, be followed in connexion with the selection of village sites, village lay-outs, village water-supplies, drainage, and house hygiene, and it is satisfactory to be able to state that, under the orders of the Financial Commissioner, Development, these principles are being acted upon, so far as possible, in the Nili Bar Colony.

In old established villages the opportunity of giving effect to these principles only rarely occurs, and here it has been necessary to concentrate upon measures designed to ameliorate existing conditions. In this connexion considerable progress, in spite of paucity of funds, was made during the year in many districts, and more especially in the districts of the Ambala and Jullundur Divisions. The quality and quantity of the work varied in individual districts, partly with the interest displayed by civil authorities, the district board, and Rural Community Councils and other philanthropic societies, and partly with the energy and initiative displayed by the District Medical Officer of Health. The work mainly comprised the cleaning of villages, the removal and "pitting" of manure, the cleaning and repairing of village wells—11,958, wells were cleaned and 182 wells were repaired during the year—the paving and draining of village streets and lanes, the provision of ventilators in houses and in one district (Ferozepore) the provision of village playing grounds, all the work being done by the villagers partly with the aid of funds raised locally by public subscription. Much credit is due to Deputy Commissioners for the active part they have taken in encouraging village betterment. Indeed, it is probable that, without their assistance, in the early stages, little or nothing could have been done, but in all districts where the movement is well under way the time has come when, if the work is to possess any permanency, reliance should be increasingly placed upon *voluntary* effort on the part of the villagers. On this account it is encouraging to note that a large number of village sanitation committees were formed during the year and that many of them have adopted the model sanitary rules framed under Sections 56 and 57 of the District Boards Act. Apart from rural uplift work, a large number of sanitary works of public utility were constructed voluntarily by public spirited individuals in towns and rural areas. The names of the donors, the nature of their gifts and the cost are given in Appendix IV.

#### RELIGIOUS FAIRS.

41. The sanitary arrangements in connexion with all important religious fairs and many others were as usual organised by the District Medical Officers of Health and carried out under their personal supervision, or, in the case of the more important religious fairs, of that of an Assistant Director of Public Health. It is gratifying to note that the recommendations made by District Medical Officers of Health were generally adopted by local authorities and it is a special cause of satisfaction that the official policy in respect of the incineration of night-soil, in place of burial, was largely followed. It may therefore be hoped that in the near future the trenching of night-soil will be entirely discarded. In



addition to measures for the protection and purification of the water-supply, the inspection of food-stuffs, the incineration of night-soil and the provision of isolation huts for the segregation and treatment of infectious diseases, special arrangements were made at important fairs for public health propaganda. The arrangements worked smoothly and efficiently and no instance of the outbreak of cholera or of any other infectious disease occurred at a fair during the year.

#### SCHOOL HYGIENE.

42. During the year under review Assistant Directors of Public Health and District Medical Officers of Health devoted special attention to the hygienic condition of schools. Sanitary inspections of 18 colleges and schools were carried out by Assistant Directors of Public Health and 470 schools were inspected by District Medical Officers of Health during the course of the year. The inspection reports of the latter were sent through the Assistant Director of Public Health to the Deputy Commissioner for transmission to the Managing Body, whilst the reports of Assistant Directors of Public Health on Government institutions were forwarded to the Director of Public Instruction, and the reports on private schools were sent direct to the Divisional Inspectors of Schools for transmission to the governing body. These inspection reports brought prominently to notice the insanitary environment in which the rising generation—the hope of the future—are brought up during their impressionable years of school life. The structural condition of the many schools, more especially those in converted buildings, was extremely defective. On the other hand the schools erected within recent years have been designed in accordance with modern hygienic principles and were satisfactory in respect of lighting, ventilation, air-space, seating accommodation and construction of desks. But a defect common to almost all schools was the absence of latrines and urinals ; but, even where they existed, it was clear that were rarely or never used.

It is gratifying to be able to state that, thanks to the co-operation of the school authorities and of the Directorate of the Education Department, the recommendations of the officers of the Public Health Department have in many cases, so far as funds permitted, been adopted and it may be hoped that it will be possible to report an appreciable improvement in the hygienic condition of many schools in the near future.

No progress was made in connexion with the scheme for the medical inspection of school-children. On the other hand the scheme introduced by Major J. R. D. Webb, O.B.E., I.M.S., late Municipal Medical Officer of Health, Simla, continued to function with success owing largely to the fact that the Municipal Committee of Simla has appointed a special school medical officer.

In regard to rural areas, the medical inspection of school children has been carried out for some years, as an experiment, in the districts of Gurgaon, Jullundur, Sialkot, Shahpur and Multan, but the number of scholars inspected and treated was small, the figures being in Gurgaon, 4,791 and 1701 ; in Jullundur, 7,741 and 1,243 ; in Sialkot, 3,821 and 0 ; and in Multan 2,949 and 597, respectively. The experiment has not proved an unequivocal success and the conclusion has been reached that, in the absence of a special staff of school medical officers, the medical inspection and treatment of school children is more likely to achieve success in the hands of the Medical Department, and the Public Health Department has consequently confined its attention to effecting improvements in the sanitary condition of schools and hostels.

### CHAPTER VI.—Administration.

43. **Public Health Staff.**—Lieut.-Colonel C. A. Gill, D.P.H., I.M.S., held charge of the office of Director of Public Health from January 1st to 21st March, 1931, when he proceeded on eight months' leave after making over charge to Khan Bahadur Dr. K. A. Rahman, D.P.H., Assistant Director of Public Health, Vaccination. Major R. C. Malhotra, O.B.E., I.M.S., Assistant Director of Public Health, Rawalpindi Circle, officiated for Dr. Rahman, in addition to his own duties, from March 21st until July 29th on which date the post of Assistant Director of Public Health, Multan Circle, which was held by Dr. G. R. Vohra, D. P. H., was brought temporarily under reduction and its incumbent relieved Major Malhotra of the charge of the Rawalpindi Circle. On the return from leave of Lieut.-Colonel C.A. Gill, I.M.S., D.P.H., on November 19th, 1931, Dr. Rahman relieved Major Malhotra of charge of the Vaccine Institute and the latter resumed



charge of the Rawalpindi Circle *vice* Dr. Vohra who, on reversion to his substantive rank, assumed charge as District Medical Officer of Health, Gujranwala.

Dr. A. H. Butt, D.P.H., held charge of the office of Assistant Director of Public Health, Lahore Circle and Personal Assistant to the Director, throughout the year, except for the period of 1 month and 21 days when Rai Sahib Dr. M. J. Thakor, D.P.H., officiated for him. The post of Assistant Director of Public Health, Ambala Circle, was held throughout the year by Dr. A. B. Arora, M.B.E., D.P.H.

No change took place either in the strength or the personnel of the provincial staff, including the emergency staff of 10 Sub-Assistant Health Officers and 15 Sanitary Inspectors, except that the post of Assistant Director of Public Health, Multan Circle, was brought under reduction and one District Medical Officer of Health, Dr. A. R. Mehta, was seconded for service under the Indian Red Cross Society with effect from April 1st, 1931. No substitute was entertained in place of Dr. M. Yacob who was absent on deputation throughout the year.

District Medical Officers of Health were, as last year, posted as Medical Officers of Health, Murree and Dalhousie, respectively, during the hot weather and a Medical Officer of Health belonging to the reserve continued to hold the post of Medical Officer of Health, of the Mandi Hydro-Electric Station, Jogindarnagar.

In spite, therefore, of the insistent claims of economy and of the recommendations of the Retrenchment Committee, no appreciable reduction in provincial public health staff occurred. Nevertheless, for a large part of the year, the existence of the Department was in jeopardy and its members carried out their duties under the shadow of impending dissolution.

Owing to financial stringency, no progress was made with the scheme for the provincialization of Municipal Medical Officers of Health and for the same reason the appointment of whole-time Medical Officers of Health of Rohtak and Gujranwala was postponed. Out of the nine local bodies, to which offers for the employment of part-time medical officers of health were extended, only four of them—Palwal, Fazilka, Batala and Nankana Sahib—appointed such Officers.

**44. Punjab Vaccine Institute.**—Khan Bahadur Dr. K. A. Rahman, Assistant Director of Public Health (Technical) Vaccination, held charge of the Punjab Vaccine Institute up to March 21st, 1931, when he was relieved by Major R. C. Malhotra, O.B.E., I.M.S., who officiated for him until November 21st, 1931, when Dr. Rahman resumed charge. Captain H. C. Phillips, I.M.D., held the post of Superintendent throughout the year.

The total number of tubes of vaccine lymph issued during the year was 71,384, as compared with 70,435 in the preceding year. The lymph was distributed as follows:—Punjab, 44,921 tubes; North-West Frontier Province, 4,794 tubes; Special Staff, Punjab, 1,816 tubes; Punjab States, 4,356 tubes; North-Western Railway 410 tubes; Military Department, 4,049 tubes; Indian States and foreign countries, 11,038 tubes.

The number of tubes issued to districts in the Punjab showed an increase of 2,089 tubes, as compared with the previous year.

No change was made in the method of preparing the vaccine or in the mode of its despatch. The issue of vaccine in collapsible metal tubes has been under trial for the past 2 years, but no conclusion has yet been reached in the matter. During the year under review 137 buffalo calves, 15 cow calves and 16 rabbits were used as vaccinifers and the average yield of pulp was 123.10 grms. per buffalo calf, 25.80 grms. per cow-calf and 1.90 grms. per rabbit, and it is satisfactory to note that the figures for the past four years have shown a progressive increase.

The profit accruing to Government from the sale of vaccine lymph, after deducting depôt charges, was Rs. 32,687-1-6 as compared with Rs. 29,137-12-0 in the previous year.

During the period from November 1931 to March 1932, 34 vaccinators and 34 private individuals were trained in the technique of vaccination, as also were the 4th and final year students of the King Edward Medical College and the pupils attending the course of instruction for Sanitary Inspectors and Lady Health Visitors.



**45. Epidemiological Bureau.**—The work conducted during the year in the Epidemiological Bureau by Dr. R. B. Lal, M.B.B.S., D.P.H., D.T.M. and H., D. B., the Epidemiologist to Government and his staff mainly comprised field and laboratory investigations bearing upon current public health problems. As usual, most of these investigations were connected with malaria. Apart from routine work in connexion with the spleen census and the preparation of the annual malaria forecast, malaria surveys were undertaken by Dr. K. S. Shah of the Khanna Dah area in Rawalpindi district and in a flooded tract of Lahore district, whilst the important investigation which was commenced some four years ago at the Chakanwali Reclamation Farm, with a view to elucidate the relationship of water-logging and malaria, was completed. The Bureau was also called upon to investigate outbreak of enteric fever in a village in Gujrat district and at Dhariwal in Gurdaspur district, an outbreak of diphtheria in Rawalpindi city and an epidemic, which proved to be influenza, in Dera Ghazi Khan district.

The work conducted in the laboratory included the bacteriological analysis of 108 water samples forwarded by Municipal and District Medical Officers of Health, the examination of 245 stools, 49 throat swabs, 468 blood films and 38 miscellaneous specimens. Finally, a rat-flea survey was commenced in May 1931 and the laboratory study of the role of the house-fly in the spread of cholera was continued. Reports on the more important of these investigations have been or will shortly be published in scientific journals and it must suffice here to state that the above brief account of the activities of the Bureau fails to do justice to the quality and quantity of the work performed during the year, nor does it indicate the valuable part it played in elucidating the practical problems encountered in day-to-day public health administration. The staff of the Bureau underwent no change during the year, and Dr. M. L. Talwar continued to officiate for Dr. M. Yacob whose fellowship under the Rockefeller Foundation has been extended until August, 1932.

**46. Maternity and Child Welfare.**—There were 35 Health Centres in the province at the commencement on January 1st, 1931 and 8 new centres were opened during the year, but unfortunately, owing to financial strigency, 6 centres were closed, so that the number of Health Centres was only increased by two at the end of the year. Four new Centres were opened under District Board management at Hissar, Kangra, Jandiala and Nurmahal, respectively, the Red Cross Society established centres at Jhelum, Jhang and Pindigheb, and an Infant Welfare Committee opened a Centre at Jullundur.

The Inspectress of Health Centres made 44 visits of inspection to these Centres as compared with 40 in the previous year, and her inspection reports bore witness to the efficient manner in which the work at almost all Centres was being conducted. It may be remarked that over 20,000 mothers received advice and instruction in regard to themselves or their off spring during the year, 7,337 expectant mothers visited the Centres for advice and 3,198 labour cases were personally conducted by Health Visitors. Finally, 9,832 confinements were conducted under the general direction of Health Visitors by dais under training at Health Centres, medical aid being summoned in 355 cases of difficult labour.

Considerable progress was made in the important work of training indigenous dais. The number of dais under training was 939 as compared with 607 in the previous year, whilst 265 dais trained at Health Centres obtained the indigenous dais' certificate of the Punjab Central Midwives Board.

The progress made was therefore appreciable and the slowing down in the rate of increase in the number of Health Centres is readily comprehensible in view of the financial position. The Managing Committees of Health Centres received grant equal approximately to 40 *per cent.* of the salary of the Health Visitor from the Punjab Government and many centres also received grants from the Victoria Memorial Scholarship Fund to meet the cost of training indigenous dais, but in spite of this assistance, many Centres would have had to close had it not been for the generous assistance of the Punjab Branch of the Red Cross Society. The Red Cross Society decided during the year that the promotion of maternity and child welfare work should constitute one of their chief objects and a scheme is now under preparation for spending in a profitable manner a sum of Rs. 30,000 earmarked by the Society for this purpose. This is a most encouraging gesture and, the coming into force in the near future, of the Nurses



Registration Act, constitutes another land-mark on the road to progress, since it provides for the registration of dais and gives power to local bodies to forbid unregistered dais from practising within the area under their jurisdiction.

The Punjab Health School continued satisfactorily its valuable work of training Health Visitors. At the end of the session in April, 1931, all eight pupils obtained the Health Visitors' diploma and were provided with appointments, although two resigned after a few months and refunded their stipends. At the autumn session, which commenced in October, 8 students—2 Hindus, 3 Sikhs and 3 Christians—entered the School, but the two Muslims who had been selected, were unfortunately unable to join owing to illness. The curriculum underwent no change, the practical training being conducted partly at the Infant Welfare Centre attached to the School and partly at a sub-centre opened, for training in village work, at Fatehgarh village.

The staff of the School was strengthened during the year by the revival of the post of Superintendent and the appointment thereto in October 1931 of Miss Maula Bakhsh and the appointment of Miss Lal as Assistant Superintendent.

Much credit is due to Mrs. D. Mitra, M.A., the Principal of the School and Inspectress of Health Centres for the able and efficient manner in which she conducted her duties in both capacities and I am particularly indebted to her for several useful suggestions, which have been or shortly will be given effect to, for promoting the technical efficiency of the School and for safeguarding the welfare of the students.

**47. Public Health Chemical Laboratory.**—The work conducted in this laboratory, which in the charge of Mr. Brij Lal, M.Sc., A.I.C., showed a small but steady increase, the number of samples submitted for analysis being 494, as compared with 443 in the preceding year, and 346 in the year 1929. The number of samples submitted by Municipal Medical Officers of Health was 195, as compared with 76 in the previous year, the increase being probably due to the remission by Government of the fee of Rs. 16 previously charged for each analysis. On the other hand the number of samples forwarded by District Medical Officers of Health showed a small decrease being 102, as compared with 148 in the previous year. The 494 analyses included 131 of milk, all forwarded by Municipal Medical Officers of Health, 127 of water, 38 of ghee, 26 of atta and 17 of kankar (lime) the last representing samples sent by the Superintending Engineer. Public Health Circle. Of the 127 samples of water 37 (30 *per cent.*) were found to be unfit for human consumption on account of hardness or salinity, whilst 15 or 13 *per cent.* of the samples of milk and 13 or 33 *per cent.* of the samples of ghee were found to be adulterated. The fact that all the samples of atta, 26 in number, were found to be deficient in gluten, although in other respects they conformed to standard, suggests that the standard is in need of revision and this matter is now under consideration.

Apart from routine work, experiments were continued to estimate the quantity of aluminium taken up from aluminium vessels by food-stuffs cooked in accordance with Indian methods. The experiment has not yet been completed and no definite conclusions have in consequence been reached. Little or no progress has unfortunately been made in bringing into operation the Punjab Pure Food Act, but proposals have been submitted to Government, which, if accepted, may be the means of surmounting the difficulties that have prevented an Act designed to safeguard the pockets as well as the health of the public from being widely adopted by local bodies.

**48. Public Health Equipment Depot.**—The year under review was remarkable by reason of its healthiness and the demands made upon the Public Health Equipment Dépôt, Jullundur, for disinfectants, vaccines, etc., by District Medical Officers of Health were consequently small, nevertheless the dépôt constitutes an essential part of defence scheme for combating epidemics.

During the past year, owing to the absence of great epidemics, it has been possible to reduce the stocks maintained at the Dépôt and the value of the stores in hand on January 1st, 1931, was Rs. 7,736-3-9, as compared with Rs. 14,597-14-3 on the same date of the previous year. The cost of stores purchased during the year was Rs. 8,886-12-8, as compared with Rs. 12,485-14 in the previous year, so that stocks of an aggregate value of Rs. 16,623-0-5 were available for issue. The cost price of the articles sold during the year amounted



to Rs. 11,635-14-2 and their sale price, after adding depôt charges, was Rs. 14,243-6-7. There was thus a gross profit of Rs. 2,607-8-5 during the year, as compared with Rs. 5,275-2-3 in the preceding year. In addition to the articles sold to local bodies, the depôt issued, free of cost, 89,016 doses of anti-plague vaccine, 40,770 c. c. of anti-cholera vaccine and 130 lbs. of quinine. The maintenance charges of the depôt amounted to Rs. 5,818-6-3, as compared with Rs. 5,900-9-9 in the previous year. Owing therefore to the small sales the depôt was run at a loss, the deficit being Rs. 3,210-13-10 as compared with Rs. 625-7-6 in the previous year. Steps have been taken to reduce the maintenance charges to the lowest possible figure, but it is considered that it is preferable that the depôt, during healthy periods, should run at a small loss rather than that the depôt charges should be permanently enhanced.

The post of Superintendent was held throughout the year by Sub-Assistant Surgeon Mushtaq Ali, whose management was characterized by efficiency and despatch.

The accounts of the depôt were, as usual, audited by the departmental auditor in March 1931 and suitable action was taken on the audit report.

**49. Educational Bureau and Health Propaganda.**—The Educational Bureau has suffered perhaps more than any other branch of the department from the prevailing financial stringency. It was only possible to carry out Public Health Propaganda on the usual lines. District Medical Officers of Health continued to give lantern lectures to school children and at fairs and during the year under review 5,521 such lectures were given, whilst the course of lectures in hygiene in the normal schools of the province was continued.

The scheme for purchasing equipment with a view to carrying out public health propaganda by means of motion pictures, prepared locally, was postponed as also was the scheme for providing each Assistant Director and the Principal of the Punjab Health School with a projector.

Owing to the same cause it has not been possible to appoint a whole-time Publicity Officer to organize and systematize public health propaganda and the department has had to be content with the publicity which comes from the performance (when efficiently carried out) of its every-day duties. Nevertheless, Rai Sahib Dr. Harnath Singh, District Medical Officer of Health, Ferozepore, continued to act in an honorary capacity as Publicity Officer and, as such, he performed much useful work in preparing schemes for Health Exhibitions, in devising posters and in editing books, pamphlets and dramas. In June 1931 he undertook voluntarily the preparation of monthly public health journal, which bids fair to play useful part in the health education of the province.

The questions of trachoma having recently assumed importance a pamphlet was prepared, which has recently been revised by Lieutenant-Colonel A. M. Dick, I.M.S., F.R.C.S., for general distribution, whilst a pamphlet and lantern slides dealing with ankylostomiasis were prepared during the year and will shortly be circulated to officers of the Medical and Public Health Departments.

One of the two posts of photographers attached to the Education Bureau has recently been abolished, but during the year under review 954 magic lantern slides were prepared for departmental use, together with 185 photographs, 149 prints, 58 enlargements, 56 post cards and 816 feet of film, whilst on behalf of other departments, 158 magic lantern slides and 38 photographs were prepared.

**50. Inspections.**—Owing to his duties at Headquarters it is only rarely possible for the Director of Public Health to undertake prolonged tours and the duty of carrying out the routine sanitary inspections of towns, (with the exception of Lahore and Simla), has in consequence been delegated to Assistant Directors of Public Health. Tours of the Director of Public Health are usually made for the purpose of investigating a specific public health problem or of inspecting, in conjunction with the Superintending Engineer, Public Health Circle, Sanitary Works, contemplated or under construction. Such a tour of the former nature was the visit to the Nili Bar Colony, with a view to the study of the sanitary problems associated with the creation of new towns and villages in this colony. The Director of Public Health also paid visits of inspection to localities infected with plague, cholera and malaria in epidemic form. In view of the pressing need of economy officers of the Public Health Department were requested to curtail their routine tours of inspection as much as possible.



Assistant Directors of Public Health periodically inspected the work of District Medical Officers of Health, more especially in connexion with the suppression of epidemics, vaccination, and the registration of births and deaths. They also carried out routine sanitary inspections of 53 towns, 28 villages and 18 schools—and, in their capacity as Additional Inspectors of Factories, 18 factories were inspected. District Medical Officers of Health inspected 60 large towns and 4,116 villages, these figures being somewhat smaller than the corresponding figures of the preceding year.

In all cases the inspection reports were forwarded to the authorities concerned, and, although the reports received regarding the action taken on their recommendations are often disappointing, it is clear that these reports served to focus attention upon sanitary defects and that the recommendations of inspecting officers are in an increasing degree being acted upon.

51. **Conclusion.**—In the foregoing pages an attempt has been made to appraise the state of the public health in the year 1931 and to give some account of the activities of the Public Health Department during the year. It has been shown that it may confidently be assumed, in the light of an analysis of all the available statistical and other data, that, in spite of the effects of the great fall in prices associated with the world-wide depression of trade, the health of the people during the year under review was not only remarkably good, but that it has rarely, if ever, been better. It is proper that the Public Health Department should claim some share in this satisfactory state of affairs, but it would be incorrect, as well as unwise, to attribute the exceptional salubrity of the year 1931 wholly or even mainly to the activities of the Public Health Department. It would be incorrect, because it would ignore the part played by the happy concatenation of a number of climatic and other factors favourable to health, and it would be unwise since, with the whirligig of time and a change in the “epidemic constitution” of disease, the conditions may become less favourable to health and the province may again be devastated by one or other of the great pestilences to which it is so peculiarly liable. The value attaching to the services of the Public Health Department may be more properly and fittingly appraised in terms of the work actually performed during the year. Some account of this work has been given in the preceding paragraphs of this report and it is not necessary again to summarize it. It is held that it may justifiably claim to constitute a creditable achievement and to represent much solid work, conscientiously performed in the interest of the health and well-being of the province. This work was moreover conducted under peculiarly adverse circumstances, since, neither Government nor Local Bodies, owing to the financial position, were in a position to incur new expenditure on public health; whilst for the large part of the year the Department lay under the threat of the financial axe.

Space does not permit of the mention of all whose conspicuously good work calls for commendation, but in concluding this, my last report, I should like to take the opportunity of expressing my appreciation of the manner in which all ranks of the Public Health Department performed their duties during the year, and more especially of thanking them for their valued assistance and loyal co-operation during the past eight years. And it is largely as the result of their devoted labours that, at the moment of laying down the office of Director of Public Health, after 25 years' service in the Punjab, I am able to entertain the firm conviction that the foundations of future progress have been well and truly laid. It now remains for others to build the superstructure.

C. A. GILL,

SIMLA :

July 10th, 1932.

BREVET-COLONEL, I.M.S.,

Director of Public Health, Punjab.







## APPENDIX I.

### ANNUAL REPORT OF THE SUPERINTENDING ENGINEER, PUBLIC HEALTH CIRCLE, PUNJAB, FOR THE YEAR 1931.

#### I.—ADMINISTRATION.

The post of Superintending Engineer, Public Health Circle, Punjab, was held by Rai Bahadur Diwan Amar Nath, Nanda, B.A., M.I.E., (Ind.), throughout the year.

The number of Divisions comprised in this Circle remained the same as before, *viz.*, 3 Divisions.

(1) *First Lahore Public Health Division*.—The designation of this Division was changed from Lahore Public Health Division to 1st Lahore Public Health Division with effect from 1st May 1931 the date on which Headquarters of the Multan Public Health Division were transferred to Lahore and it remained in charge of Mr. D. A. Howell, A.M.I.C.E., throughout the year.

(2) *Second Lahore Public Health Division*.—The Multan Public Health Division was renamed as II Lahore Public Health Division on its headquarters having been transferred to Lahore with effect from 1st May 1931. This Division remained in charge of Mr. T. B. Madnani, Temporary Engineer, from 1st January 1931 to 22nd January 1931 on which date Mr. J. A. R. Bromage took over and held charge throughout the remaining portion of the year.

(3) *Ambala Public Health Division*.—This Division remained in charge of Mr. B. F. Main throughout the year.

On the transfer of Headquarters of the Multan Public Health Division to Lahore the territorial charges of 2 Divisions, *viz.*, I and II Lahore Public Health Divisions were re-adjusted and the Estate Public Health Sub-Division, Lahore, was placed under the control of the II Lahore Public Health Division.

Mr. Devi Chandra Khanna, Assistant Executive Engineer retained the charge of the office of Personal Assistant to the Superintending Engineer up to 24th May 1931 on which date he was posted as Sub-Divisional Officer, Lahore Public Health Sub-Division, handing over charge of his duties as Personal Assistant to Lala Guranditta Mal Khosla, hitherto acting as Sub-Divisional Officer, Sialkot Public Health Sub-Division, which charge was taken over by Mr. J. S. Sethi, Assistant Engineer, transferred from the Lahore Public Health Sub-Division.

Mr. J. S. Sethi held charge of the Lahore Public Health Sub-Division up to 24th May 1931, on which date he was transferred to the Sialkot Public Health Sub-Division, the Headquarters of which were shifted to Rawalpindi and its name changed to Rawalpindi Public Health Sub-Division on 11th July 1931, owing to the commencement of the Murree Water-works Extension Scheme.

Lala Nand Lal held the charge of the Ludhiana Public Health Sub-Division throughout the year.

Lala Guranditta Mal Khosla held the charge of the Sialkot Public Health Sub-Division up to 24th May 1931 on which date he handed over the charge of the Sub-Division to Mr. J. S. Sethi and assumed the duties of Personal Assistant to the Superintending Engineer after relieving Mr. D. C. Khanna of the same.

Sardar Hukam Singh, temporary Engineer, held the charge of the Estate Public Health Sub-Division, Lahore, throughout the year.

Lala Dina Nath, Duggal, held charge of the Rohtak Public Health Sub-Division up to August 1931 and of the Bhiwani Public Health Sub-Division for the rest of the year as Headquarters of the former Sub-Division were transferred to Bhiwani on the completion of the Rohtak Water-works and the commencement of the Bhiwani Water-works Scheme.

*Miscellaneous Work*.—One hundred and forty-five visits to Municipal Towns, Notified Areas and Small Towns were paid by the Superintending Engineer and his staff in connection with public health schemes during the year.

*Boring Works*.—Nineteen borings were done during the year. Some of these were done departmentally with Government plant and some by contract. The work in both the cases was done expeditiously and economically.

The average number of public health works under execution during 1931 from month to month was 46.

Twelve new schemes were commenced during the year and 16 completed.



## II.—PUBLIC HEALTH WORKS.

Government Works are dealt with first :—

1. *Surface Drainage, Police Lines, Amritsar, Rs. 27,004.*—The extramural drainage work including construction of crossings under Majithia distributary and disposal works has been completed and the scheme has been put into operation.

2. *Sewerage Scheme of main and anatomical block of new Medical School, Amritsar, Rs. 10,187.*—The raising of roof of pumping chamber is in hand and will be completed in 2 months' time.

3. *Water Supply, Chauburji Gardens Estate, Lahore, Rs. 1,10,343.*—The work has been completed finally.

4. *Sewerage Scheme, Chauburji Gardens Estate, Lahore, Rs. 2,70,731.*—The last item of work in this scheme, namely one set of 6 units of Sweepers' Quarters is nearing completion.

5. *Water Supply Extension, District Jail, Multan, Rs. 11,569.*—This work was taken in hand and two borings were made at different sites close to the District Jail, Multan but, the water being not potable, work was abandoned. Estimate for taking water from the Municipal mains has been prepared and submitted to the Jail Department for disposal.

6. *Water borne Sewerage scheme in Civil Secretariat and adjoining offices, Lahore, Rs. 23,023.*—The estimate has been sanctioned technically but work will be taken in hand when funds are received.

7. *Installing disinfecter in Central Jail, Lahore, Rs. 11,646.*—The job has been practically completed.

8. *Proposed Extramural Drainage and Sullage disposal in Borstal Institution, Central and Female Jails, Lahore, Rs. 83,565.*—All work has been completed except the pumping stations which are in hand. The scheme is expected to be in running order early next year.

9. *Providing Water Supply and latrines, Government High School, Naushehra (Shahpur District), Rs. 11,928.*—The work has been completed.

10. *Sewerage Scheme, MacLagan Engineering College, Moghalpura, Rs. 86,516.*—The internal drains and sewers are complete but the pumping stations and disposal works are held up owing to non-acquisition of land. It is hoped possession of the land will be taken early in 1932 when the scheme will be completed and put into operation.

11. *Surface drains in Fort land area, Lahore, Rs. 22,862.*—The bulk of this work has been finished. The progress on the unfinished work depends on the building construction progress. All the drains have been finished in the blocks where houses have been completed.

12. *Providing a tubewell and Water Supply for Fort Terraces, Lahore, Rs. 11,475.*—The pumping plant and pipes have been ordered and boring operations are about to start.

13. *Taraki Quarry Water Supply, Jhelum District, Rs. 38,621.*—The scheme was sanctioned but the work has been postponed by Government.

14. *Providing complete steam installation, sanitary and air conditioning services in Block C, New Maternity Hospital, Lahore, Rs. 1,06,414.*—The bulk of the plant has been delivered; the building work is in course of construction and the installation will be erected as soon as possession of the building is obtained.

15. *Heating installation in Block B.—New Maternity Hospital, Lahore, Rs. 10,920.*—Block B of the New Maternity Hospital has been equipped with a low pressure radiator, hot water, central heating system using steam calorifiers for heating the hot water. The scheme will not function till the steam boiler plant which is now in hand, is completed and put into operation.

16. *Ludhiana Intermediate College Water Supply, Rs. 11,393.*—The work is well in hand and will function early next year.

Works in connection with local bodies are described below :—

1. *Sialkot Drainage Scheme, Rs. 4,49,881.*—The drains and pavements are practically complete, but work on small drains in mohallas and streets remains to be carried out. The work is expected to be completed next year.

2. *Thal Ilaga Water Supply, Jhelum District, Rs. 1,45,962.*—The scheme consists of intake works based on a spring at Sardi in the Salt Range, Jhelum District, and a steel gravity pipeline discharging into masonry tanks at Pir Khara. The works were finished in 1928. In 1930-31 certain damage sustained by heavy rain to a suspension crossing was rectified; and savings on the estimate are now being utilized in re wrapping and recoating the steel mains with bitumastic solution and hessian cloth, as these were found to have been corroded badly by the action of salt laden subsoil.

3. *Thal Ilaga Water Supply Extension, Rs. 65,546.*—The above scheme provides for water supply extensions to Jethal and Dhudi villages in the Jhelum District. The estimate has been sanctioned technically but funds have not been received so far.



4. *Tamman Water Supply, Attock District, Rs. 78,894.*—The pumping plant was delivered as well as all the pipes and fittings and the steel reservoir was erected in 1930. The work of laying distribution pipelines and rising main and the construction of headworks will be taken in hand as soon as possession of the land is obtained early in 1932.

5. *Pind Dadan Khan Temporary Water Supply, Rs. 37,339.*—The work has been completed and is functioning satisfactorily.

6. *Murree Water-works Extensions, Rs. 5,25,236.*—This scheme consists of the construction of a large steel reservoir in 2 compartments (capacity 3,200,000 gallons) on concrete foundations at the Knoll, Dunga Galli, about  $\frac{1}{2}$  mile below the Murree Water Supply headworks. The springs forming the sources of water supply for Murree are unable to yield the water required in the hot weather months preceding the monsoon, consequently Murree always suffers from a chronic shortage of water in that season of the year. The springs, however, yield a copious supply in the early spring owing to the melting of the snows and the new reservoir is intended to store the surplus water obtainable in that season in order to supplement the supply in the dry hot weather months. A 10" C. I. Supply main has been laid from the springs to the reservoir and a 6" C. I. outlet main will join the reservoir to the existing trunk supply main leading to Murree. Construction work was started in November 1930 and one compartment of the reservoir is practically complete.

The whole of the scheme is expected to be completed by August 1932.

7. *Sanitary Installation at New Civil Hospital, Gujranwala, Rs. 42,976.*—The work consists of a complete scheme for tube-well water supply both for domestic and irrigation purposes, water carriage system of waste water, drainage, external surface drains, electric pumping station for sewage, hot water supply, incinerator, bug boiler for dhobies and installation of sanitary fittings and sinks.

The construction work is approaching completion and the pumping plants are on order. It is expected the job will be ready for operation by April 1932.

8. *Nankana Sahib Drainage, Sheikhpura District, Rs. 58,380.*—Work on the intercepting and intramural drains, etc., is in hand and the disposal works will be started as soon as possession of the land is taken.

9. *Hafizabad and Garhi-Awan Drainage and dewatering of ponds, Gujranwala District, Rs. 1,19,502.*—The scheme has recently been sanctioned and the tenders for the work have been called.

10. *Trial borings in 8 villages in Attock District, Rs. 18,181.*—Boring work at village Khunda was started through the agency of the Agricultural Department. The boring has been carried down to a depth of 400 feet in hard stratified rock but no water was struck. The pipes have been withdrawn and the next bore at Dhurnal has been taken in hand recently.

11. *Choa and Katas Water Supply Improvements, Rs. 31,232.*—The reservoir has been rendered water tight by treating it with a malthoid lining but the remaining works are still pending as funds have not been provided.

12. *Jawalamukhi Water Supply, Rs. 39,758.*—The work has been finished.

13. *Multan Water Supply Scheme, Rs. 12,57,637.*—The work after completion is functioning satisfactorily.

14. *Multan Drainage, Part I, Rs. 1,22,976.*—The scheme was completed and pumping plant put into operation during September 1931 but pumping had to be stopped owing to the Committee not having deposited the necessary funds for running. The irrigation channel across the railway line is under construction and on its completion the scheme will be complete in all respects.

15. *Multan Drainage, Part II, Rs. 1,34,747.*—The work on the main sewer and outfall sewer, storm water channel and irrigation channel has been completed. The disposal works consisting of two 30 feet 6 inches diameter tanks and pump house are nearing completion. The pumping plant has also arrived at the site of the works.

16. *Duplicate set of pumping plant, water works, Dera Ghazi Khan, Rs. 29,790.*—The erection of pumping plant is nearing completion and it will be put into operation as soon as suction and delivery pipes have been received and fixed in position.

17. *Isakhel Water Supply, Rs. 1,36,844.*—The work consisting of pumping station, Service Reservoir, Distribution System and Staff Quarters has been completed.

The maintenance of the water supply was undertaken by this Department for one year with effect from 23rd April 1931.

18. *Chhidru trial boring, Rs. 4,088.*—The work of withdrawing 15" diameter boring pipes has been done this year.

19. *Ghundi village Water Supply, Rs. 3,937.*—The work has been completed.

20. *Nagni village Water Supply, Rs. 4,523.*—The work has been completed.



21. *Kalri Water Supply, Rs. 9,721.*—This scheme comprises the sinking of a 10 ft. diameter percolation well and provision of a 3" plain pipe and Tej Strainer in the bottom of the well. The work has recently been started and excavation of the well is in hand.

22. *Ferozepore Drainage Scheme, Rs. 82,944.*—The construction of the storm water channel has been taken in hand.

23. *Ludhiana Drainage Scheme, Rs. 3,45,009.*—The works have been completed and the scheme is functioning satisfactorily. Several intramural drains are proposed to be constructed out of savings in the main estimate, for which estimates have been prepared.

24. *Karnal Drainage Scheme, Rs. 1,46,851.*—The scheme is completed with the exception of the disposal works. The scheme will be put in action in March 1932.

25. *Jagraon Mandi Drainage Scheme, Rs. 80,251.*—Extramural and intramural drains have been completed and also all pavements and roads in the Mandi. The land has been acquired for the outfall and the work is now in hand and will be completed in April 1932.

26. *Improvements to old well at Hoshiarpur, Rs. 14,372.*—A bore has been sunk in the Choe nallah and a test will be made to ascertain the discharge.

27. *Parao land Drainage, Rohtak Town, Rs. 12,654.*—The work has been completed and is functioning satisfactorily.

28. *Rohtak Water Supply Extension, Rs. 20,154.*—The work has been completed.

29. *Special Repairs to Rewari Waterworks, Rs. 18,954.*—The work has been completed satisfactorily.

30. *Bhiwani Water Supply Scheme, Rs. 5,90,267.*—This work is progressing rapidly. The majority of pipes have been received for the distribution system and the laying has been commenced. The lime factory has been erected and lime and bricks are being manufactured, staff quarters and high level tanks are nearing completion. Other works are being let out.

AMAR NATH, NANDA,

*Superintending Engineer, Public Health Circle, Punjab.*

Particulars of Sanitary Projects prepared during the year under report, is given below :—

(i) ESTIMATES PREPARED BY EXECUTIVE ENGINEERS, PUBLIC HEALTH DIVISIONS.

<i>Name of Project.</i>	<i>Amount.</i>
	<i>Rs.</i>
<b>PRELIMINARY PROJECTS.</b>	
<b>(a) Major Works—(Provincial).</b>	
1. Famine Relief programme, Dera Ghazi Khan District ..	1,11,280
2. Gojra Water Supply Scheme .. ..	1,02,118
3. Burewala Water Supply Scheme .. ..	1,47,359
4. Air cooling installation for High Court, Lahore—	
I .. ..	28,000
II .. ..	42,000
5. Water Supply Scheme for District Jail, Ferozepore ..	21,054
6. Water Supply, King Edward Medical Hospital, Karnal ..	10,787
7. Water Supply for Hydro-Electric Sub-stations at Ferozepore, Ludhiana, Phillaur, Phagwara, Jullundur and Kartarpur	15,899
8. Water Supply to Government Intermediate College, Ludhiana .. ..	11,398
Minor Works .. ..	2,98,072
<b>Total ..</b>	<b>7,87,967</b>



Name of Project.				Amount.
				Rs.
(b) Major Works—(Contribution).				
(1) Lehigh Pollution Prevention Scheme, Rawalpindi—				
I	..	..	..	8,64,678
II	..	..	..	70,179
(2) Khushab Drainage Scheme	..	..	..	70,000
(3) Dera Ghazi Khan Drainage	..	..	..	13,08,685
(4) Project for Drainage Scheme, Khanna	..	..	..	1,14,014
Total ..				19,27,556

## DETAILED PROJECTS.

(a) Major Works—(Provincial).				
1.	Providing tube-well for the Jail Road Cemetery, Lahore..			11,363
2.	Constructing 2 blocks of 6 quarters each for sweepers at the Chauburji Gardens Estate, Lahore .. ..			10,772
3.	Proposed Water Supply (tube-well) for Fort Terraces, Lahore .. .. .			11,475
4.	Providing Water Supply to Hydro-Electric Sub-Station at Shalamar .. .. .			10,822
5.	Proposed drainage and sullage disposal arrangements at Industrial Buildings, Shahdara .. ..			59,600
6.	Bathing platforms, Old Central Jail, Multan .. ..			10,541
7.	Provision of Latrines and bathing platforms in the District Jail, Mianwali .. ..			10,486
8.	Water Supply, Old Jail, Multan .. ..			18,764
9.	Civil Hospital, Montgomery, Sanitary arrangements ..			13,208
10.	District Jail, Multan, Water-supply .. ..			31,608
11.	Independent Water Supply, European Clerks' Cottages, Lahore .. ..			10,138
12.	Drainage, New Civil Hospital, Multan .. ..			10,475
13.	Water Supply for Hydro-Electric Sub-Stations Verka, Dhariwal, Pathankot and Kangra .. ..			97,063
Total ..				3,06,315

(b) Major Works —(Contribution).				
1.	Annual Maintenance, Multan Water-supply .. ..			10,495
2.	Annual Maintenance, Dera Ghazi Khan Waterworks, for 1931-32 .. ..			12,845
3.	Annual Maintenance, Dera Ghazi Khan Waterworks, for 1932-33 .. ..			12,845
4.	Trial borings in various villages, Dera Ghazi Khan District			17,840
5.	Palampur Old Town Water-supply .. ..			29,776
6.	Kulu Water-supply .. ..			36,892
7.	Water-supply and Sanitary Installation, New Civil Hospital, Gujranwala .. ..			42,976
8.	Water-supply for Dulmial village, Salt Range ..			45,584
9.	Multan Drainage, Part II maintenance .. ..			16,496
	Minor Works .. ..			33,682
Total ..				2,59,431



## (ii) ESTIMATES PREPARED IN THE CIRCLE OFFICE.

Serial No.	Name of projects prepared.	Detailed or preliminary.	Cost.
			Rs.
1	Panipat Water-supply .. .. .	Detailed.	3,00,604
2	Arafwala Mandi Drainage—Revised .. .. .	Do.	1,42,167
3	Montgomery Drainage Scheme—Revised .. .. .	Do.	5,97,290
4	Kamalia Bazar Mandi Drainage .. .. .	Preliminary	21,783
5	Water-supply to Dhoks of Warala, Karoli and Malok—villages in Jhelum District (Thal Haqa Water-supply Extension) .. .. .	Do.	44,419
6	Improving and putting into proper working order, Mianmir Storm Water Channel, Lahore .. .. .	Detailed	31,250
7	Mian Channu Drainage .. .. .	Do.	1,21,000
8	Artillery and Katchery Road drainage at Sialkot Minor Works .. .. .	Preliminary	27,815
		..	3,973
	Total .. .. .	..	12,90,301

## (iii) PROJECTS SCRUTINIZED IN THE CIRCLE OFFICE.

			Rs.
1.	Constructing a Tube-well sump, drivers' quarters, foundation, etc., Tili Bhana Dhab, Amritsar .. .. .		20,861
2.	Lyallpur Water-supply Extension .. .. .		84,895
	Minor Works .. .. .		36,589
	Total .. .. .		1,42,345



APPENDIX II.

STATEMENT OF PUNJAB WATERWORKS FOR THE YEAR ENDING 31st MARCH 1931.

No.	Name of Municipality.	Population at the census of 1931.	Average daily quantity of water supplied during the year.	Average daily supply per head of population.	RECEIPTS.						EXPENDITURE.										BALANCE.		REMARKS.
					Water-rate.	Sale of water.	Rent of meters.	Other receipts.	Total receipts.	Establishment.	Pumping.	Intake.	Settling tanks and filters.	Distribution.	Repairs.	Water-analysis.	Miscellaneous.	Total expenditure.	Credit balance.	Debit balance.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
1	Ambala (Handover)	37,224	227,228	6.1	..	18,519	..	343	18,862	12,919	11,443	175	..	1,585	1,971	..	10,000	38,093	..	Rs.	Rs.		
2	Amritsar	264,840	2,023,055	7.63	..	..	..	..	..	12,187	17,624	..	..	..	..	..	..	29,811	..	..	Rs.		
3	Dalhousie	1,030	20,000	19.41	4,533	..	..	..	4,533	489	..	..	..	209	375	36	..	1,109	3,424	..	Rs.		
4	Dera Ghazi Khan	23,468	234,491	10.00	..	2,630	210	..	2,840	3,237	3,050	..	..	722	1,935	..	2,416	11,360	..	..	Rs.		
5	Dharmasala— Municipal/Water Works	3,976	68,000	18.00	5,077	..	..	..	5,077	402	..	..	..	..	3,491	..	..	3,893	1,184	..	Rs.		
	Cantonment/Water Supply	2,383	36,000	15.1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Rs.		
6	Gojra	9,779	70,000	7.15	380	..	..	161	541	1,678	3,292	8,640	270	96	2,823	..	250	17,049	..	16,508	Rs.		
7	Jaranwala	7,320	88,000	12.02	2,575	..	..	30	2,605	1,461	2,018	1,678	1,563	..	2,161	..	..	8,881	..	6,276	Rs.		
8	Lahore	429,747	*3,211,757	7.47	..	323,511	68	6,713	3,30,292	1,03,849	55,370	..	..	31,984	664	4,350	57,074	2,53,291	77,001	..	Rs.		
9	Ludhiana	68,586	794,144	11.57	..	26,818	24	15	26,857	7,992	15,044	..	..	..	..	..	..	23,036	3,821	..	Rs.		
10	Lyallpur	42,922	526,083	12.25	41,129	..	165	4,652	45,946	3,734	8,625	5,463	..	39,833	3,412	..	11	25,228	20,718	..	Rs.		
11	Pinde Dadan Khan	9,832	24,000	2.44	..	..	..	..	..	1,138	2,855	..	..	..	..	..	..	3,993	..	3,993	Rs.		
12	Rawalpindi	75,767	1,666,583	21.99	..	37,524	..	..	37,524	12,691	12,402	..	..	15,893	..	..	..	40,986	..	3,462	Rs.		
13	Bewari	26,269	88,422	3.3	..	380	90	116	586	6,444	6,833	..	..	2,523	2,234	..	..	18,044	..	17,458	Rs.		
14	Sargodha	26,761	299,792	11.2	1,320	14,401	115	556	16,392	7,654	3,866	274	342	2,832	468	..	17,247	32,683	..	16,291	Rs.		
15	Simla	18,144	373,598	20.58	92,745	72,493	11,069	3,420	1,79,927	99,655	1,24,497	..	16,686	44,531	20,949	..	..	3,06,318	..	1,26,391	Rs.		
16	Shalkot	85,122	836,768	9.83	28,534	..	..	611	29,145	5,328	681	..	..	2,576	159	..	28,662	37,406	..	8,261	Rs.		
17	Toba Tek Singh	5,903	44,650	7.56	216	1,800	..	..	2,016	1,023	1,985	2,160	..	..	2,355	..	..	7,523	..	5,507	Rs.		
18	Khushab	14,194	75,121	5.29	..	..	..	1,003	1,003	1,688	12,301	..	..	132	14	..	..	4,135	..	3,132	Rs.		
19	Muktsar	14,839	108,522	7.31	2,071	3,621	1,925	1,835	9,452	2,272	1,523	1,532	50	1,438	203	..	92	7,110	2,342	..	Rs.		
20	Bhalwal	4,153	31,546	7.59	..	432	222	75	729	1,268	957	..	284	140	467	..	..	3,116	..	2,387	Rs.		
21	Sillanwali	2,583	21,642	8.1	..	121	11	620	752	1,473	1,495	497	496	276	24	..	..	4,261	..	3,509	Rs.		
22	Pathankot	9,763	50,166	5.13	..	..	..	..	..	1,957	506	..	..	731	733	..	746	4,676	..	4,676	Rs.		
23	Murree	†1,960	70,937	35.82	12,100	97	..	..	12,107	..	..	..	..	..	22,046	..	..	22,046	..	9,849	Rs.		

\* Badamibagh Pumping Station only.

† Winter population.



## APPENDIX III.

## PROCEEDINGS OF THE SANITARY BOARD.

(MARCH 31st, 1931—APRIL 1st, 1932.)

During the period under review the composition of the Board underwent no change except that during the absence on leave of Lieutenant-Colonel C. A. Gill, I.M.S., the post of Secretary was held by Khan Bahadur Dr. K. A. Rahman, M.B., Ch. B., D. P. H.

The name of the Board, which since the year 1928 had been known as the Urban Sanitary Board, was changed during the year and, with effect from 20th of January 1932, when the Rural Sanitary Board ceased to exist, it resumed its former title of Sanitary Board and once more assumed responsibility for promoting water-supply schemes in rural areas. No change was, however, made in the composition of the Board and it thus comes about that it contains at present no representatives of the rural population—a circumstance which is regrettable in view of the widespread but mistaken belief that the Board has in the past neglected the interests of the rural population.

The Board met on 3 occasions during the period under review, the attendance of non-official members, of whom there are 7, again bearing witness to the interest taken by the representatives of the Legislature in public health questions. The activities of the Board in common with those of other spending departments, were seriously curtailed during the year under review by reason of the precarious financial position. On this account all grants and refunds standing to the credit of the Board with the Finance Department were surrendered whilst the Punjab Government informed the Board on October 1st, 1930, that it should, until further orders, undertake no new commitments and that all funds not earmarked for projects already under construction should be refunded to Government.

In April 1931 the sum of Rs. 4 lakhs was placed at the disposal of the Board by Government, whilst a sum of Rs. 3,52,000 which represented refunds and the regrant of amounts surrendered in previous years, was retained as a reserve by the Finance Department.

Owing, however, to financial stringency, the Board was required to surrender Rs. one lakh of its normal grant, as well as the whole of the reserve, with the result that the total amount at the disposal of the Board for allotment during the year was reduced to Rs. 3 lakhs.

The names of the schemes to which grants were given and the amount allotted to each are as follows :—

TABLE.

Serial No.	Name of scheme.	Amount allotted.		
		Rs.	A.	P.
1	Murree Water-supply Extension Scheme .. ..	67,491	0	0
2	Bhiwani Water-supply .. ..	1,00,000	0	0
3	Temporary Water-supply Scheme, Pind Dadan Khan ..	7,306	0	0
4	Nankana Sahib Drainage .. ..	29,190	0	0
5	Trial boring in connexion with Sakhi Sarwar Fair Area Water-supply Scheme .. ..	3,820	0	0
6	Hafizabad and Garhi Awan Drainage and dewatering of ponds ..	29,875	0	0
7	Meters of Multan Water Works .. ..	3,820	0	0
8	Lyallpur Factory Area, Drainage Scheme .. ..	137	11	0
9	Construction of incinerators and rubbish sheds at Murree ..	5,247	0	0
10	Choa and Katas Fair Area Water-supply Scheme .. ..	15,232	0	0
11	Preparation fee of the Vehoa Water-supply Project .. ..	473	0	0
12	Bhiwani Water-supply Scheme .. ..	37,408	5	0
Total .. ..		3,00,000	0	0

It will be seen that the sum placed at the disposal of the Board was utilized in full.

Apart from schemes placed before the Board for administrative approval the Board submitted its considered views on a number of important questions of public health policy. It thus made several urgent representations to Government on the subject of the delay in executing the Lahore Water-supply Extension Scheme and the even greater urgency of



carrying out at least Part I of the Lahore sewerage Scheme. The Board brought to the notice of Government the recalcitrant attitude of local bodies in the matter of the metering of private house connections and in the case of the Municipal Committee of Sargodha, it urged Government, in view of the declared intention of the Municipal Committee not to honour its pledged word, to resume the grant-in-aid given to this committee for its water-supply scheme. Another important matter that engaged the attention of the Board during the year was the question of the inspection of the sanitary works of local bodies by the Superintending Engineer, Public Health Circle, and the recommendations of the Board on this subject are now under the consideration of Government. These instances suffice to indicate the important duties performed by the Board and it will thus be clear that, although the activities of the Board during the year under review were somewhat curtailed by reason of the prevailing financial stringency, it played a useful and indeed important part in advising Government on important questions affecting public health policy.



## APPENDIX IV.

LIST OF SANITARY WORKS OF PUBLIC UTILITY CONSTRUCTED BY  
PRIVATE BENEFACTION DURING THE YEAR 1930-31.

## AMBALA DIVISION.

1. *Hissar*.—A well at a cost of Rs. 1,500, parapets and platforms at the existing wells of Shadi Pujari and Doongar Singh, Rajput, at a cost of Rs. 1,000 and Rs. 600, respectively, by Lala Onkar Mal, son of Dhani Ram, Mahajan at Bhiwani. A well at a cost of Rs. 1,500 by Prabhu, son of Harkishan Das, Mahajan, at Satrod Khurd.
2. *Rohtak*.—A dharamsala and a well at a cost of Rs. 500 by Harphool, son of Nathoo, Jat, of Mahmudpur, Tahsil Gohana, on the way of Mahmudpur and Gangesar. A well at a cost of Rs. 300, on the way of Khandrai, Tahsil Gohana, by Suddhan, son of Salig, Brahman of Mahmudpur. A well at a cost of Rs. 200, by Mahajans of village Khanpur Kalan, Tahsil Gohana, on the way of Khanpur Kalan and Mudana.
3. *Gurgaon*.—A well with parapets and platforms at a cost of Rs. 1,000 by Barkandi Lal at Hodal. Repairing of parapets and platforms at a cost of Rs. 500 by Babu Ram at Hodal. Repairing of a well at a cost of Rs. 150, by Khushhali Ram at Gudhrana. Construction of one Piao at a cost of Rs. 115 by Mrs. Victoria Ingram at Khetala. A well and a dharamsala at a cost of Rs. 800 by Bhulli at Nangal Brahman.
4. *Karnal*.—A well at a cost of Rs. 4,075 by Pandit Gita Ram at Gharaunda village. A well at a cost of Rs. 500 by Chaudhri Ram Lal at Sheikhupura. A parapet at a cost of Rs. 200 by Chaudhri Fateh Singh at Sheikhupura. A parapet at a cost of Rs. 200 by Gudan, Chamar at Kunjpura. A parapet at a cost of Rs. 100 by Bundu Khan at Kunjpura. Four parapets repaired by public donation at a cost of Rs. 200 at Kunjpura. A parapet repaired at a cost of Rs. 50 by Chaudhri Najib Khan at Bazidpur. A parapet at a cost of Rs. 300 by Chaudhri Badhawa Ram at Shergarh. A parapet at a cost of Rs. 150 by Chaudhri Shio Lal at Kaul. A well at a cost of Rs. 200 by Chaudhri Chandan, Lambardar, at Kaul. A parapet at a cost of Rs. 100 by Tulsi Ram at Kaul. A well at a cost of Rs. 100 by Dogar Patti at Kaul. One parapet by public donation at Daha. A parapet and a trough at a cost of Rs. 150 by Chaudhri Abhe Ram, Zaildar at Patti Kalyana. Two water troughs at a cost of Rs. 15 by Chaudhri Harnam Datt at Habri. A water trough at a cost of Rs. 15 by Lala Kesho Ram at Habri. A water trough at a cost of Rs. 8 by Lala Sheoji Mal at Habri. A water trough at a cost of Rs. 8 by Lala Thana Mal at Habri. A water trough at a cost of Rs. 25 by Hashim Ali at Habri. A water trough at a cost of Rs. 8 by Bhola Mal at Habri. A water trough at a cost of Rs. 8 by Rali Ram at Habri. A water trough at a cost of Rs. 8 by Bani Prashad at Habri. A water trough at a cost of Rs. 8 by Dhanpat Rai at Habri. A water trough at a cost of Rs. 8 by Dhanpat Rai at Habri. A water trough at a cost of Rs. 8 by Panna Lal at Habri. A water trough at a cost of Rs. 8 by Datu Mal at Habri. A water trough at a cost of Rs. 15 by Sheo Ram at Habri. A water trough at a cost of Rs. 8 by Maru Ram at Habri. A water trough at a cost of Rs. 15 by Karori Mal at Habri. A water trough at a cost of Rs. 8 by Raghu Nath at Habri. A water trough at a cost of Rs. 8 by Hargo Lall at Habri. A water trough at a cost of Rs. 30 by Nazir Ahmad at Habri. A water trough at a cost of Rs. 15 by Telu Mal at Habri. A water trough at a cost of Rs. 8 by Mohammad Ismail at Habri. A water trough at a cost of Rs. 8 by Bhola at Habri. A water trough at a cost of Rs. 8 by Hakim Abdul Karim at Habri. A water trough at a cost of Rs. 8 by Ahmad Khan at Habri. A water trough at a cost of Rs. 15 by Budhu, Hajjam, at Habri. A water trough at a cost of Rs. 25 by the inhabitants of Mohalla Brahmanwala at Habri. A water trough at a cost of Rs. 15 by Badri Mal at Habri. Three water troughs at a cost of Rs. 9 by Miranji Shamlat at Habri.
5. *Ambala District*.—A pucca tank at a cost of Rs. 2,000 by Pandit Virbhan at village Matapur. A pucca well and a house at a cost of Rs. 1,250 by Narain Singh, Jat, at village Kumbra. Two pucca gháts in Bias Kund Tank for bathing of males and females at a cost of Rs. 3,000 by Lala Paras Ram, Bania of Bilaspur, at Bilaspur.

## JULLUNDUR DIVISION.

6. *Kangra*.—A pucca well at a cost of Rs. 800 by Bawa Dattgir at Tika Garli. An Atyala over a well at a cost of Rs. 600 by M. Bakhshi Ram at Tika Beha. A pucca well at a cost of Rs. 2,930 by Subedar Barru Ram at Tika Pansai. A baoli at a cost of Rs. 145 by Mussammat Kalawatti at Tika Darla, Mauza Bhalet. A well at a cost of Rs. 700 by Lala Prabh Dyal at Tika Dahora, Tappa Dhatwal. A tank at a cost of Rs. 170 by Lt. Dhani Ram at Sari Molag. A tank at a cost of Rs. 150 by Jamedar Shamsheer Singh at Sari Molag. A tank at a cost of Rs. 190 by Badhawa Singh, Pensioned Hav. Shiaman and Lt. Sadhoo Singh at Sari Molag.

*Jullundur*.—A water pump at a cost of Rs. 100 by Madan Lal Firm (Messrs. Kahan Chand and Sons), at Bazar Bheron. A water pump at a cost of Rs. 100 by Dhani Ram, Khatri, inside Mai Hiran Gate. A water pump at a cost of Rs. 125 by Mst. Mohan Devi, w/o Bindra Ban, Khanna, outside Mai Hiran Gate. Repairing of parapet of a well at a cost of Rs. 25, by public donation near Bawain Temple. A water pump at a cost of Rs. 100 by the



inhabitation Chah Mehranwala in Bagichi Dina Misser. A water pump at a cost of Rs. 150 by Lala Balla Mal, Cloth Merchant, near house of Sardar Kasera Singh, Pleader. A water pump at a cost of Rs. 125 by Lala Shiv Sahai in Bazar Kalan. Repairing of a well at a cost of Rs. 100 by Maharaj Muni Lal on Kapurthala Road. A water pump at a cost of Rs. 100 by Lala Kharaiti Ram, son of Amin Chand, Jaini, at M. Khakroban. A water pump at a cost of Rs. 100 by public contribution at Khakroban Gate. A water pump at a cost of Rs. 100 by Q. Mahbub Alam at Pir Jalal Road. A parapet of a well and bachi at a cost of Rs. 100 by Q. Mahbub Alam at Mohalla Rollan Khodian. Repairing of a well at a cost of Rs. 50 by general contribution at Mohalla Mahindruan. A water pump at a cost of Rs. 125 by Bux Illahi and Company at Pir Jalal Road. A well at a cost of Rs. 1,000 by Dr. Vishwanath at Mohalla Purian.

*Ludhiana District.*—A well at a cost of Rs. 1,100 by Lala Hira Lal at Bazar Churakh-rian. A well at a cost of Rs. 600 by Mahasha Charanjit Lal at Mohalla Ghumaran.

*Ferozepore District.*—Two pumps, 2 cess pits and 1 parapet at a cost of Rs. 80 by Murad Beg at Khilchi Qadim. One pump and a parapet and a platform at a cost of Rs. 15 by Boora, Lambardar, at Haji Chhimba. A parapet and a platform at a cost of Rs. 20 by Qamar Din, Mukhtar at Suba Kahan Chand. A parapet and a platform at a cost of Rs. 10 by Bela, Lambardar at Norangke leli. A pump, a cess pit and a platform at a cost of Rs. 40 by Kalu, Muzara, at Luthar. A platform at a cost of Rs. 7 by Lakha, Lambardar, at Hasteke. A platform and a parapet at a cost of Rs. 10 by Fateh Din and Umardin, Lambardars at Rodewala. A platform and a parapet at a cost of Rs. 8 by Ghulam, Lambardar, at Wagheewala. Two pumps, 2 cess pits, a parapet and a platform at a cost of Rs. 90 by Khan Mohammad, Lambardar and Fateh Mohammad, Pattidar, at Hassan Dhut. A parapet and a platform at a cost of Rs. 15 by Haidar, Hissedar, at Fattuwalla. Five pumps, and 4 cess pits at a cost of Rs. 248 by Allah Ditta, Zaildar, Solah, Wallah, Abdul Ghani, Amam Musjid and Munshi Ram at Bareke. Two pumps at a cost of Rs. 89 by Dallah, Lambardar and Bagga at Dulchike. A pump and a cess pit at a cost of Rs. 51 by Hakim Ali, Lambardar, at Madhre. Three pumps and 2 cess pits at a cost of Rs. 143 by Jalal Din, Lambardar and Akbar and Daulat, shopkeeper, at Hussainiwala. A parapet and a platform at a cost of Rs. 10 by Nur Muhammad, Lambardar, at Kunde. A parapet and a platform at a cost of Rs. 10 by Walloo at Habibke. A parapet and a platform at a cost of Rs. 10 by Ahmad Din, Lambardar, at Attari. Four pumps, 2 cess pits, a parapet and a platform at a cost of Rs. 186 by Abdul Aziz, Ghulam, Lambardar, and Umar Din, Zaildar, at Karyian. Three pumps, 1 cess pit, a parapet and a platform at a cost of Rs. 154 by Gaman, Lambardar, at Suba Qadim. A parapet and a platform at a cost of Rs. 10 by Nizam, Lambardar, at Suba Jadid. A pump and a cess pit at a cost of Rs. 57 by Ali Mohammad of Sodhewala and Jalal Din at Sodhewala. Two pumps, 1 cess pit and a parapet at a cost of Rs. 98 by Jagat Singh, Lambardar at Bhagwanpura. A pump and a cess pit by Umar Din, Zaildar, at a cost of Rs. 45 at Basti Khem Karan. Two pumps and a cess pit at a cost of Rs. 79 by Nagar Mull-Narain Singh at Rakhri. A parapet and a platform at a cost of Rs. 30 by Jalal Din, Hissedar, at Basti Prewali. A pump and a cess pit at a cost of Rs. 40 by Buta Mal and Umar Din, Lambardar, at Hastewala. Two pumps and 1 platform at a cost of Rs. 90 by Shah Nawaz Khan and Nur Samandkhan at Malwal Qadim. Four pumps, 7 cess pits and a parapet at a cost of Rs. 180 by Khan Sahib Mohammad Hussain Khan, Khalil Ahmad Khan, Shahbaz Khan, Nisar Ahmad Khan, Hafiz Ahmad Khan, Lambardar, at Malwal Jadid. A platform at a cost of Rs. 15 by Mohammad Hayat Khan, Rabnawaz Khan, Lambardar at Mohkamkhanwala. Two pumps and a parapet at a cost of Rs. 70 by Narain Singh, Zaildar, at Badhni Jaimal Singh. A parapet at a cost of Rs. 10 by Amar Singh, Lambardar, at Kakuwala. Two pumps at a cost of Rs. 60 by Mohammad Hussain, Lambardar, Durbara Singh and Kamunkhan at Bazidpore. A cess pit and a parapet at a cost of Rs. 60 by Rukun Din and Nizam Din at Rukna Begu. Four pumps and 5 cess pits, a parapet and a platform at a cost of Rs. 400 by Ram Kamar and Banwari Lal at Nurpore. Three cess pits, 1 parapet and a platform at a cost of Rs. 20 by Ghulam Haider, Lambardar, at Alewala. A parapet at a cost of Rs. 10 by Mauja Singh, Lambardar, at Asal. A platform at a cost of Rs. 15 by Umar Din, Lambardar, at Acheewala. Eight pumps, 6 cess pits, a parapet and a platform at a cost of Rs. 280, by Nihal Singh, Lambardar, Dilawar, Gurdit Singh, Bur Singh, Indar Singh, Narain Singh, Diyal Singh and Matab Singh at Jhok Harihar. Three pumps, 3 cess pits at a cost of Rs. 99 by Din Mohammad Khan, Sarfraz Khan and Mahmudkhan at Khanpore.

#### LAHORE DIVISION.

*Gurdaspur District.*—A well at a cost of Rs. 1,200 by Sardar Sahib Malik Singh, Zaildar, at village Bajju. Repairing of a well and erection of a new parapet at a cost of Rs. 45 by Sham Lal, son of Ganga Ram, Khatri, at village Bhajura. Repairing of a well and erection of a new parapet at a cost of Rs. 80 by Malkan Deh at Bhajura. A well at a cost of Rs. 250 by Seva Singh, retired Police Sub-Inspector, at Bahadur Lahri. Erection of a new parapet at a cost of Rs. 40 by Piaro, son of Ravela, Rajput, at Nanowal. Erection of a new parapet at a cost of Rs. 40 by Hanso, son of Labhu, Mahajan at Naowal. Erection of a new parapet at a cost of Rs. 40 by Pir Zafar Shah, son of Mulk Shah, at Nanowal. Erection of a new parapet at a cost of Rs. 40 by Sawan, son of Chetu, Jat, at Ransike. Erection



of two new parapets at a cost of Rs. 100 by Karim Bux, Barber at Bagga. Erection of two parapets at a cost of Rs. 70 by Umra, Gujjar, at Hoa. Erection of a new parapet at a cost of Rs. 50 by Aman Din at Pindi Mahan. Erection of a new parapet at a cost of Rs. 70 by Diwan Fateh Chand at Kanjrur.

*Sialkot District.*—A well at a cost of Rs. 450 by the inhabitants of village Dhalleke in the Sikh Gurdwara at Dalleke. A well at cost of Rs. 350 by Ishwar Singh, Arora, in the District Board School, Begowal. A pump at a cost of Rs. 45 by Rajindar Singh to the south of the area of the tahsil and thana Daska. A pump at a cost of Rs. 32 by Aishan Bibi, widow, in the town.

*Gujranwala District.*—A well combined with building at a cost of Rs. 2,000 by Lala Gopal Das, Chopra, near Tahsil at Hafizabad. A well and a water pump at a cost of Rs. 500 by Khuda Bakhsh, son of Rahmat, on the Grand Trunk Road.

#### AMRITSAR DISTRICT.

A parapet of Mata Rani well at a cost of Rs. 10 by Lala Mangat Mal at Khawspur. A parapet of bazarwala well at a cost of Rs. 20 by Mst. Daropdi at Khawspur village. A parapet at a cost of Rs. 30 by Lala Moti Ram at Sarai Amanet Khan. A well at a cost of Rs. 350 by Bishen Kaur, w/o Lala Ram Chand Sud at Chabbal Kalan. Parapets of 3 wells repaired at a cost of Rs. 70 by Akbar Ali Sufaid Posh and potters at Sohian Kalan. A well at a cost of Rs. (not known) by S. Basant Singh, Head Teacher, at Miran Kot. A well at a cost of Rs. 200 by S. Jhande Khan at Dhaul Kalan. A platform and a parapet at a cost of Rs. 45 by Lala Natha Shah at Gaggar Bhana. A well at a cost of Rs. (not known) by Lala Mathra Dass, Post Master, at Makowal. Three wells at a cost of Rs. 300 at Gaggomahal. One hand-pump at a cost of Rs. 40 by Hakim Ismail at Gaggomahal.

#### RAWALPINDI DIVISION.

*Shahpur District.*—A drinking well at a cost of Rs. 2,400 on road from Naushera to Sakesar at Sabhral by Mst. Nihal Bai, w/o Duni Chand, caste Arora. A hand pump at a cost of Rs. 70 in Guru Bazar, Sargodha City, by B. Gulab Singh-Sant Singh. A hand pump at a cost of Rs. 45 in Block 10, Sargodha City, by Lala Radha Kishen, Timber Merchant.

*Jhelum District.*—Land worth Rs. 250 for digging well by public donation donated by Raja Fazal Dad Gondal at village Dalwal. A pucca tank at a cost of Rs. 200 by Ida, Kumhar of Dalwal, on the road from Dalwal to Macerach. A tank at a cost of Rs. 300 by Sher Mohd., Mochi, on Bhowan-Nurpur Road. A well at a cost of Rs. 450 by Shian Khan of Ransial on Kallar Kahar Nurpur Road. Two kachha wells and a tank at a cost of Rs. 230 by Sayed Mali Shah at Chak Naurang. A tank at a cost of Rs. 150 by Fateh Mohammad, Lambardar, at Dhangri Dheru. Providing of a persian wheel on a well at a cost of Rs. 450 by Chaudhri Sultan Khan at Sarkal Mair. A tank at a cost of Rs. 250 by Mian Ghulam Hussain at Oderwal. A well at a cost of Rs. 1,500 by S. Rukan Alam at Chohan. A well at a cost of Rs. 700 by Charan Singh at Dhudhial.

*Rawalpindi.*—A well at a cost of Rs. 300 by S. Farman Ali at Sambal Kasaq. A well at a cost of Rs. 200 by Subedar Khan Zaman at Malpore. A well at a cost of Rs. 500 by Ali Hussain Shah at Dheri Shahan. A well at a cost of Rs. 550 by Ghulam Asghar Shah at a Dheri Shahan. A well at a cost of Rs. 450 by Ghulam Mohd. at Dheri Shahan. A well at a cost of Rs. 550 by Noor Khan at Dheri Shahan. A well at a cost of Rs. 500 by Fazal Ahmad at Dheri Shahan. A well at a cost of Rs. 550 by Sujan Singh at Dheri Shahan. A well at a cost of Rs. 250 by Subedar Major Fazal Dad Khan at Kirpa. A well at a cost of Rs. 150 by Sharak Din, etc., at Pind Malkan. A well at a cost of Rs. 175 by Piroz, etc., at Pind Malkan. A well at a cost of Rs. 500 by Ghulam Mohd. at Gujar Khan.

*Campbellpur District.*—A well at a cost of Rs. 400 by Malik Ghulam Haider Khan, Zaildar of Tallagang, in the compound of the Tallagang Anant Ram Zenana Hospital.

*Mianwali district.*—A well at a cost of Rs. 800 by Qasam Shah, Qureshi, of village Shahbazkhel near the slaughter house. A well at a cost of Rs. 200 by Lala Sundar Das, Dhamija, at Gaushala Street. A well at a cost of Rs. 200 by Abdul Rahman Khan, Orderly, near the Municipal Bungalow. A well at a cost of Rs. 200 by Imam Bakhsh, Mistri and M. Falak Sher, Miana, in the Street of Lala Ishar Dass.

A well at a cost of Rs. 1,000 by Chaudhri Hukam Chand at Piplan. A well at a cost of Rs. 1,000 by M. Haji Ahmad, son of Ahmad, at Kundian. A well at a cost of Rs. 1,000 by the public of Kundian at Kundian. A parapet at a cost of Rs. 40 by Hoya Ram and Jiwan Dass at Dabb. A parapet at a cost of Rs. 40 by Tulsi and Jodha Ram at Dabb.

A well at a cost of Rs. 600 by Zulfiqar Khan, Awan, at Jalalpur. A well at a cost of Rs. 750 by Ghulam Mohd., Pathan, at Khudozai. A parapet at a cost of Rs. 8 by Kalu Ram and others at Trag. A parapet at a cost of Rs. 100 by Ahmad Yar at Trag. A parapet at a cost of Rs. 3 by Kalu Ram and others at Trag. A parapet at a cost of Rs. 8 by Zaman, etc., at Trag. A parapet at a cost of Rs. 3 by Ali Mohd., etc., at Trag. A parapet



at a cost of Rs. 4 by Muqarrab, etc., at Trag. A parapet at a cost of Rs. 3 by Ghulam Hussain, etc., at Trag. A well at a cost of Rs. 1,000 by Sayed Ali Mohd. Shah at Mehr Shah Wali. Two parapets at a cost of Rs. 14 by S. Amir Shah at Mehr Shah Wali.

A well and a sarai at a cost of Rs. 2,000 by Sewa Ram, son of Lekhu Ram, at Kallurkot. A well at a cost of Rs. 600 by Malik Shahalam, Zaildar, Mankera, at Rakh Mankera. A well at a cost of Rs. 500 by Sant Lal, son of Kahan Singh, at Haiderabad.

#### MULTAN DIVISION.

*Montgomery District.*—A parapet at a cost of Rs. 20 by the village community at Chak No. 95/9-L. A parapet and a platform at a cost of Rs. 80 by the village community at Chak No. 104/7-R. Repairing of a platform at a cost of Rs. 10 by the village community at Chak No. 82/6-R. Cleaning of 4 wells and providing parapets at a cost of Rs. 60 by the village community at Arifwala. Cleaning of two wells at a cost of Rs. 2 by the village community at Renala Khurd.

*Lyallpur District.*—A well at a cost of Rs. 4,790 by Messrs. Dhanpat Mal-Jawala Dass at the Factory Area, Lyallpur. An electric motor fitted to a well at a cost of Rs. 550 by Messrs. Das Mal-Bhagat Ram between Rail and Kharkhana Bazaar, Lyallpur. A hand pump at a cost of Rs. 100 by Lala Jinda Ram-Asa Nand, Arhti, Gojra, near Railway Gate, Gojra. A hand pump at a cost of Rs. 100 by Lala Mohan Lal, Cloth Merchant in the Old Grain Market, Gojra. A hand pump at a cost of Rs. 100 by Lala Diwan Chand Rai, near Sub-Judge's Court, Gojra. A hand pump at a cost of Rs. 100 by Lala Daulat Ram near Hindu Temple, Gojra. A hand pump at a cost of Rs. 100 by Lala Mohan Lal at Chauk Bazar near eastern gate of old Market Gojra. A hand pump at a cost of Rs. 100 by Lala Sohan Lal near Meat Market, Gojra. A hand pump at a cost of Rs. 100 by the Hindu community in Bansanwala Bazar, Gojra. A hand pump at a cost of Rs. 100 by Sardar Gurdit Singh, Iron Merchant, in Chauk Bazar near Water Works, Gojra. Four hand pumps at a cost of Rs. 100 each one near Municipal well, 2 inside Hospital compound and one near the Gate of Hindu Cremation Ground, Gojra, respectively, by Sardar Sahib Harbhajan Singh, Assistant Surgeon, Gojra. Fitting of persian wheel to a village well at a cost of Rs. 747 by the village community at Chak No. 68-G.-B. A well at a cost of Rs. 150 by the village community at Chak No. 205-G.B. Improvement to existing water supply at a cost of Rs. 1,000 from Killa Gift Fund at Chak No. 24-J.B. Improvement to existing wells at a cost of Rs. 250 by Qutab Din and Ahmad Bakhsh, Lambardars, at Chak No. 9-J. B.

*Jhang District.*—Four parapets and platform at existing wells at a cost of Rs. 300 by Mahant Kaltar Sahib at Dharmasala Kaltar, Chiniot. Two pumps at a cost of Rs. 125 by Chaudhri Moti Ram and Lala Radha Kishan at Ahmadpur.

*Multan District.*—A hand pump at a cost of Rs. 80 by Shiva Ram on Maujdarya Road. A hand pump at a cost of Rs. 100 by Shadi Ram at Tar Mandi. A hand pump at a cost of Rs. 80 by Mst. Sardar Jan at Shah Risal Road. A well and a building at a cost of Rs. 1,200 by the Hindu Panchayat outside Delhi Gate.

*Muzaffargarh District.*—A water pump at a cost of Rs. 40 by Mst. Chandni Bai, widow of Mula Ram, at Sanatan Boy School, Alipur. A water pump at a cost of Rs. 50 by Bhai Rup Chand-Jhangi Ram at Chinigot Road. A water pump at a cost of Rs. 50 by Thakar Dewa Ram, son of Thakar Lila Ram at Southern Octroi Barrier. A water pump at a cost of Rs. 40 by Pandit Gordhan Dass near Railway Station Daira Din Panah.

*Dera Ghazi Khan District.*—Three pumps at a cost of Rs. 400 by Rai Bahadur Lala Mangla Ram at Rojhan.



APPENDIX V.

STATEMENT SHOWING THE DEATH-RATES FROM CHOLERA, SMALL-POX, FEVER AND DYSENTERY AND DIARRHŒA FOR THE FIVE YEARS PRECEDING AND FOR THE PERIOD SINCE THE INTRODUCTION OF DRAINAGE OR WATER-SUPPLY OR BOTH IN THE UNDER-MENTIONED TOWNS:—

Towns.	DATE OF COMPLETION OF WORKS OF		AVERAGE ANNUAL DEATH-RATE SINCE THE INTRODUCTION OF DRAINAGE OR WATER-SUPPLY OR BOTH.					AVERAGE ANNUAL DEATH-RATE FOR THE FIVE YEARS PERIOD PRECEDING THE INTRODUCTION OF DRAINAGE OR WATER-SUPPLY OR BOTH.					REMARKS.
	Drainage.	Water-supply.	Cholera.	Small-pox.	Fever.	Dysentery and diarrhoea.	Cholera.	Small-pox.	Fever.	Dysentery and diarrhoea.			
1	2	3	4	5	6	7	8	9	10	11	12		
Rohtak	1923	..	0.24	0.26	12.90	1.08	0.5	0.3	27.7	1.2			
Rewari ..	..	1920	0.33	0.19	7.23	1.52	0.4	0.4	8.5	3.2			
Ambala	..	1895	0.39	0.40	12.15	2.77	0.5	0.4	19.3	6.4			
Simla ..	1893	1893	0.20	0.33	11.58	0.99	..	1.1	17.1	1.4			
Dharamsala	..	1908	0.46	0.31	9.56	1.83	0.3	..	6.1	1.6			
Hoshiarpur	1925	..	0.80	0.69	14.34	0.83	0.2	0.7	9.5	0.1			
Jullundur	1924	..	0.23	0.36	12.51	2.38	0.4	0.2	11.9	2.3			
Ludhiana	1895	1909	0.24	0.77	15.15	2.05	0.4	2.7	20.8	1.6			
Jagraon..	1907	..	0.42	1.03	12.18	1.48	0.6	1.5	9.3	2.0			
Ferozepore	1916	..	0.44	0.52	11.64	1.45	0.2	0.7	9.8	1.1			
Zira ..	1913	..	0.78	1.10	17.23	0.80	0.3	4.0	16.6	0.9			
Fazilka ..	1913	..	0.77	1.01	20.68	1.52	2.2	2.6	21.4	1.7			
Muktsar	..	1925	0.07	2.10	11.75	0.93	0.04	0.04	11.3	1.1			
Abohar ..	..	1929	..	0.30	7.26	0.29	..	1.1	7.8	1.1			
Lahore ..	1921	1881	0.25	0.77	12.05	2.01	0.2	0.6	20.0	1.3			
Kasur ..	1922	..	1.79	0.27	13.44	1.23	1.6	1.0	21.8	1.0			
Amritsar	1885	1904	0.49	1.00	20.98	1.48	0.4	0.7	31.3	1.8			
Jandiala	1924	..	0.62	0.40	16.40	1.30	0.03	1.0	17.1	0.7			
Gurdaspur	1918	..	0.18	0.42	15.03	2.28	0.6	0.3	14.2	3.1			
Dalhousie	..	1894	0.03	0.05	10.66	1.59	..	..	9.6	2.4			
Pathankot	1915	..	1.08	0.42	17.61	2.70	0.8	0.7	12.4	2.8			
Sialkot ..	..	1915	0.52	0.34	13.34	2.08	3.0	1.2	9.6	2.3			
Gujranwala	1892	..	0.51	0.97	18.07	1.19	0.5	0.6	19.7	1.7			
Khangah Dogran	1929	..	..	0.06	5.48	..	..	0.2	4.4	0.1			
Sangla ..	..	1924	0.08	0.38	2.80	0.12	10.4	1.1	7.1	0.2			
Chuharkana Mandi..	1928	..	..	0.07	4.42	0.20	0.4	1.0	4.6	0.3			
Gujrat ..	1906	..	0.68	0.28	18.31	1.66	0.3	0.2	16.9	1.9			
Bhera ..	1917	..	0.20	0.60	19.68	1.85	0.03	0.7	17.8	1.7			
Sargodha	1907	1907	0.08	0.30	6.95	1.00	..	Not avail	..	..			
Sillanwali	1922	1926	0.05	..	3.85	0.30	..	(b) 2.3	(b) 2.7	..			
Bhalwal	1925	1928	0.98	0.87	10.63	1.01	0.1	0.3	†8.3	†0.3			
Khushab	..	1923	0.02	0.82	14.74	1.63	0.1	0.3	14.3	1.6			
Jhelum ..	1908	..	0.35	0.42	12.07	1.43	1.5	0.3	14.0	2.1			
Pind Dadan Khan	1909	1909	0.40	0.91	19.24	2.32	1.1	0.7	23.1	3.6			
Rawalpindi	1907	1887	0.55	0.36	17.53	2.14	0.5	0.1	16.4	3.4			
Murree ..	..	1894	0.07	0.08	12.70	1.58	0.7	0.4	14.8	0.9			
Mianwali	..	1904	0.13	0.39	17.01	1.46	..	Not avail	..	..			
Lyallpur	1904	1904	0.09	0.69	10.25	0.64	*2.8	*0.4	*16.3	*2.1			
Gojra ..	..	1916	0.12	0.39	6.92	0.58	†..	†..	†0.5	†..			
Tandlianwala	1917	1924	0.10	0.65	4.55	0.19	0.8	0.8	4.6	..			
Toba Tek Singh	1920	1914	..	0.13	2.04	0.30	(a)	(a)	(a) 4.6	(a) 0.4			
Chak Jhumra	1929	1913	..	0.02	2.60	0.07	..	Not avail	..	..			
Jaranwala	1918	1913	0.01	0.03	2.09	0.09	..	Not avail	..	..			
Multan ..	1907	1928	0.002	0.05	1.96	0.64	0.01	1.0	14.7	2.0			
Shujabad	1922	..	0.05	0.46	19.84	1.58	0.7	1.1	31.1	2.9			
Dera Ghazi Khan	..	1913	0.03	0.26	15.10	2.23	2.0	0.6	15.9	1.6			
Kalka ..	..	1890	0.33	0.13	13.46	1.97	1.7	0.2	15.2	3.9			

\*Figures available for four years only.

†Figures available for 2 years only.

(a) Figures available for 3 years only.

(b) Figures available for one year only.



APPENDIX VI.

A.—TABLE SHOWING THE 8 A.M. MEAN MONTHLY TEMPERATURE AND DEPARTURE FROM NORMAL RECORDED AT 12 METEOROLOGICAL STATIONS IN THE PUNJAB AND ALSO AT DELHI DURING THE YEAR 1931.

Serial No.	Station.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		REMARKS.
		T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	T.	Dep.	
1	Delhi	50.8	—0.2	53.5	—1.8	66.9	+0.5	83.9	+4.8	89.6	+2.6	92.0	+3.3	86.4	+1.5	85.0	+1.9	81.2	—0.1	76.0	+2.2	62.0	+0.2	51.5	—0.88	
2	Hissar	49.3	+2.4	50.7	—1.4	64.8	+0.2	81.3	+2.6	88.0	—0.8	91.8	+0.7	85.5	—2.0	85.6	0	81.3	—1.3	76.1	+3.2	60.6	+1.5	50.9	+2.8	
3	Ambala	49.1	+1.7	50.7	—1.2	62.7	+0.1	79.5	+4.6	88.0	+2.8	91.8	+5.0	84.4	+0.9	83.8	+2.0	80.2	+0.8	74.3	+4.2	58.6 <sup>(c)</sup>	+1.7	50.8	+3.2	
4	Ludhiana	47.4	+0.3	48.4	—3.1	62.0	—0.7	80.4	+4.5	87.8	+2.1	92.7	+4.6	85.6	+0.8	85.1	+2.0	81.5	+1.2	74.9	+4.0	59.8	+2.0	49.5	+1.6	
5	Lahore	46.9 <sup>(b)</sup>	+1.1	47.0	—3.2	64.2	+2.1	80.3	+5.2	87.1	+1.1	92.5	+2.8	85.2	—1.8	85.2	+0.1	82.2	+0.5	74.5	+4.0	58.7	+2.7	45.8	+0.6	
6	Sialkot	47.8	+1.0	47.6	—3.2	59.7	—1.8	77.5	+3.0	85.1	—0.8	91.7	+2.4	84.6	—0.8	81.8	—1.2	80.6	+0.5	72.0	+1.8	56.2	—0.6	46.5	—0.7	
7	Rawalpindi	45.7	+3.4	46.0	—0.6	60.9	+3.3	76.4	+6.3	82.6	—0.1	92.1	+4.0	84.3	—0.2	84.9	+3.3	81.7	+4.1	70.3	+3.4	53.6	+1.3	42.8	+0.2	
8	Khushab	47.0	+1.1	47.8	—3.4	65.2	+1.5	82.5	+5.1	88.6	—0.5	94.7	+2.9	87.3	+1.3	87.6	+1.3	83.7	+0.3	75.6	+2.0	60.6	+1.8	48.1	+0.8	
9	Lyallpur.	47.4 <sup>(b)</sup>	+2.8	48.4	—1.1	63.1	+1.8	78.6	+4.9	86.1 <sup>(b)</sup>	—0.1	91.8 <sup>(c)</sup>	+1.4	85.3	—2.9	87.2	+1.9	83.0 <sup>(c)</sup>	+0.9	76.0	+4.3	62.1	+5.7	49.5	+4.2	
10	Montgomery	48.3	+1.5	48.3	—4.9	63.5	—1.5	79.5	+0.3	86.5	—3.8	90.1	+3.0	86.6	—3.4	88.0	+0.3	83.1	—1.8	75.6	—0.1	60.7	—0.5	50.6	+1.9	
11	Multan	50.8	+2.4	51.1	—2.0	67.4	+2.9	83.2	+5.4	88.6	+0.3	93.7	+2.0	90.0	+0.1	91.9	+4.8	86.4	+2.4	79.5	+5.7	64.5	+3.5	53.8	+3.5	
12	Bahawalpur	47.0	..	49.3	..	64.4	..	82.5	..	87.7	..	92.1	..	89.1	..	90.0	..	84.4	..	76.7	..	60.7	..	50.4	..	
13	Khanpur	49.4	..	49.6	..	66.5	..	82.6	..	88.5	..	91.7	..	89.6 <sup>(c)</sup>	..	89.6 <sup>(b)</sup>	..	84.2	..	77.2	..	61.5	..	49.7 <sup>(b)</sup>	..	

T=Mean monthly 8 A.M. Temperature.  
Dep.=Departure from Normal.  
R. H.=Relative Humidity mean monthly (8 A.M.)  
A. R.=Actual Rainfall during month.

(b) Mean of 30 days.  
(c) Mean of 29 days.  
(d) Mean of 28 days.  
(e) Mean of 27 days.  
(f) Mean of 26 days.



APPENDIX VI—CONTINUED.

B.—TABLE SHOWING THE 8 A.M. MEAN MONTHLY RELATIVE HUMIDITY AND DEPARTURE FROM NORMAL RECORDED AT 12 METEOROLOGICAL STATIONS IN THE PUNJAB AND ALSO AT DELHI FOR THE YEAR 1931.

Serial No.	Stations.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		REMARKS.
		R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	
1	Delhi	65	—4	73	+9	43	..	26	..	31	..	37	..	72	..	85	..	81	+10	73	..	59	..	68	..	%
2	Hissar	75	0	75	+5	63	+6	48	+6	47	+9	..	..	70	+4	80	+10	71	+5	64	+11	50	—10	59	—11	%
3	Ambala	82	—3	82	+4	54	—9	28	—20	30	—13	30	—29	71	—8	81	—3	78	—1	70	+2	(c) 64	(c) —9	68	—12	%
4	Ludhiana	85	+3	81	+5	56	—6	31	—15	31	—8	31	—21	66	—6	78	0	73	—1	64	+3	60	—5	74	—2	%
5	Lahore	(b) 88	+3	85	+6	53	—13	37	—14	32	—10	33	—18	74	+5	81	+6	75	+5	72	+10	70	—3	87	+5	%
6	Sialkot	81	—2	81	+1	68	—1	43	—10	34	—9	34	—18	70	—2	89	+9	78	+5	74	+12	75	+5	(d) 86	+7	%
7	Rawalpindi	73	—9	74	—4	47	—22	36	—20	33	—8	23	—22	58	—10	70	—7	58	—11	65	+6	59	—6	68	—7	%
8	Khushab	59	—9	66	0	58	+2	51	+8	47	+13	47	+5	69	+6	74	+5	66	+5	62	+16	47	—4	47	—13	%
9	Lyallpur	(b) 74	—10	67	—10	55	—13	38	—15	(b) 33	(b) —7	(c) 34	(c) —15	66	+3	74	+3	(c) 67	(c) +1	60	—1	56	—13	70	—10	%
10	Montgomery	71	—1	70	+5	60	+8	45	+7	47	+15	..	..	69	+11	71	+8	71	+14	66	+22	63	+11	75	+11	%
11	Multan	62	—9	(f) 65	—1	51	—7	40	—8	41	—2	41	10	56	—8	62	—7	63	—2	55	—1	53	—7	54	—15	%
12	Bahawalpur	70	..	61	..	55	..	42	..	43	..	52	..	66	..	75	..	70	..	69	..	66	..	72	..	%
13	Khanpur	61	..	65	..	54	..	49	..	51	..	54	..	(c) 64	..	(b) 69	..	68	..	65	..	63	..	(b) 69	..	%

T = Mean monthly 8 A. M. Temperature.  
Dep. = Departure from Normal.  
R. H. = Relative Humidity mean monthly (8 A.M.).  
A. R. = Actual Rainfall during month.

(b) Mean of 30 days.  
(c) Mean of 29 days.  
(d) Mean of 28 days.  
(e) Mean of 27 days.  
(f) Mean of 26 days.



APPENDIX VI—CONCLUDED.

C.—TABLE SHOWING THE MEAN MONTHLY RAINFALL AND DEPARTURE FROM NORMAL RECORDED AT 12 METEOROLOGICAL STATIONS IN THE PUNJAB AND ALSO AT DELHI DURING THE YEAR 1931.

Serial No.	Stations.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		REMARKS.
		A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	
1	Delhi	0.18	—0.86	0.90	+0.14	0.34	—0.18	0.25	—0.14	0.26	—0.32	0.09	—2.90	10.12	+2.59	4.13	—3.29	5.64	+0.86	2.26	+1.93	0	—0.11	0	—0.40	
2	Hissar	0.06	—0.65	0.40	+0.05	0.52	+0.10	0.00	—0.39	0.66	+0.07	0.14	—1.50	6.14	+2.38	3.49	—0.13	4.00	+1.64	1.04	+0.73	0	—0.003	0.01	—0.28	
3	Ambala	0.26	—1.23	2.79	+1.14	0.85	—0.05	0.04	—0.54	0.63	—0.24	1.18	—2.57	12.93	+5.58	16.90	+9.20	4.89	+0.29	1.38	+0.63	(c) 0	(c) —0.028	0	—0.57	
4	Ludhiana	0.37	—1.35	0.82	—0.47	0.56	—0.50	0.02	—0.83	0.66	+0.02	0.35	—2.18	6.69	—1.51	13.09	+6.15	3.39	—0.85	0.22	—0.26	0	—0.011	0	—0.65	
5	Lahore	1.72	+0.67	0.91	—0.03	0.99	+0.13	0.26	—0.28	0.85	+0.15	0.05	—1.63	9.77	+4.29	9.60	+4.27	2.24	—0.12	1.05	+0.80	0	—0.007	0	—0.36	
6	Sialkot	0.87	—1.24	0.59	—1.00	1.31	—0.27	0.00	—0.94	1.69	+0.56	0.00	—2.46	7.75	—0.11	14.59	+5.68	1.81	—1.56	0.55	+0.25	0	—0.011	0	—0.66	
7	Rawalpindi	3.29	+0.80	2.43	+0.24	2.61	+0.17	1.43	—0.51	2.25	+0.91	0.42	—1.82	9.01	+1.35	7.87	—1.27	3.31	—0.15	1.48	+0.97	0	—0.026	0	—1.10	
8	Khushab	0.11	—0.66	0.06	—0.83	0.58	—0.57	0.55	—0.50	0.96	+0.17	0.70	—0.67	2.84	—0.80	2.23	—0.99	0.71	—0.60	0.52	+0.35	0	—0.008	0	—0.45	
9	Lyallpur	(b) 0.24	(b) —0.14	0.36	+0.05	1.39	+0.59	1.01	+0.13	(b) 0.80	+0.42	(c) 0.49	(c) —0.84	8.91	+6.06	4.39	—0.39	(c) 2.51	+0.51	0.40	+0.06	0	—0.001	0	—0.35	
10	Montgomery	0.32	—0.24	0.07	—0.39	0.69	+0.20	0.00	—0.36	0.66	+0.31	2.19	+1.31	7.54	+5.32	2.37	—0.91	0.98	—0.55	0.62	+0.57	0	—0.007	0	—0.30	
11	Multan	0.01	—0.41	0.29	—0.07	0.23	—0.20	0.03	—0.24	0.13	—0.22	0.02	—0.62	2.01	—0.01	0.57	—1.41	0.00	—0.41	0.67	+0.62	0	—0.007	0	—0.22	
12	Bahawalpur	0.05	..	0.17	..	0.03	..	0.00	..	0.10	..	0.20	..	0.65	..	2.15	..	0.00	..	0.74	..	0	..	0	..	
13	Khanpur	0.01	..	0.29	..	0.00	..	0.00	..	0.01	..	0.36	..	(c) 0.07	..	(b) 1.82	..	0.00	..	0.24	..	0	..	(b) 0	..	

T = Mean monthly 8 A.M. Temperature.  
Dep. = Departure from Normal.  
R. H. = Relative Humidity mean monthly (8 A.M.).  
A. R. = Actual Rainfall during month.

(b) Mean of 30 days.  
(c) Mean of 29 days.  
(d) Mean of 28 days.  
(e) Mean of 27 days.  
(f) Mean of 26 days.

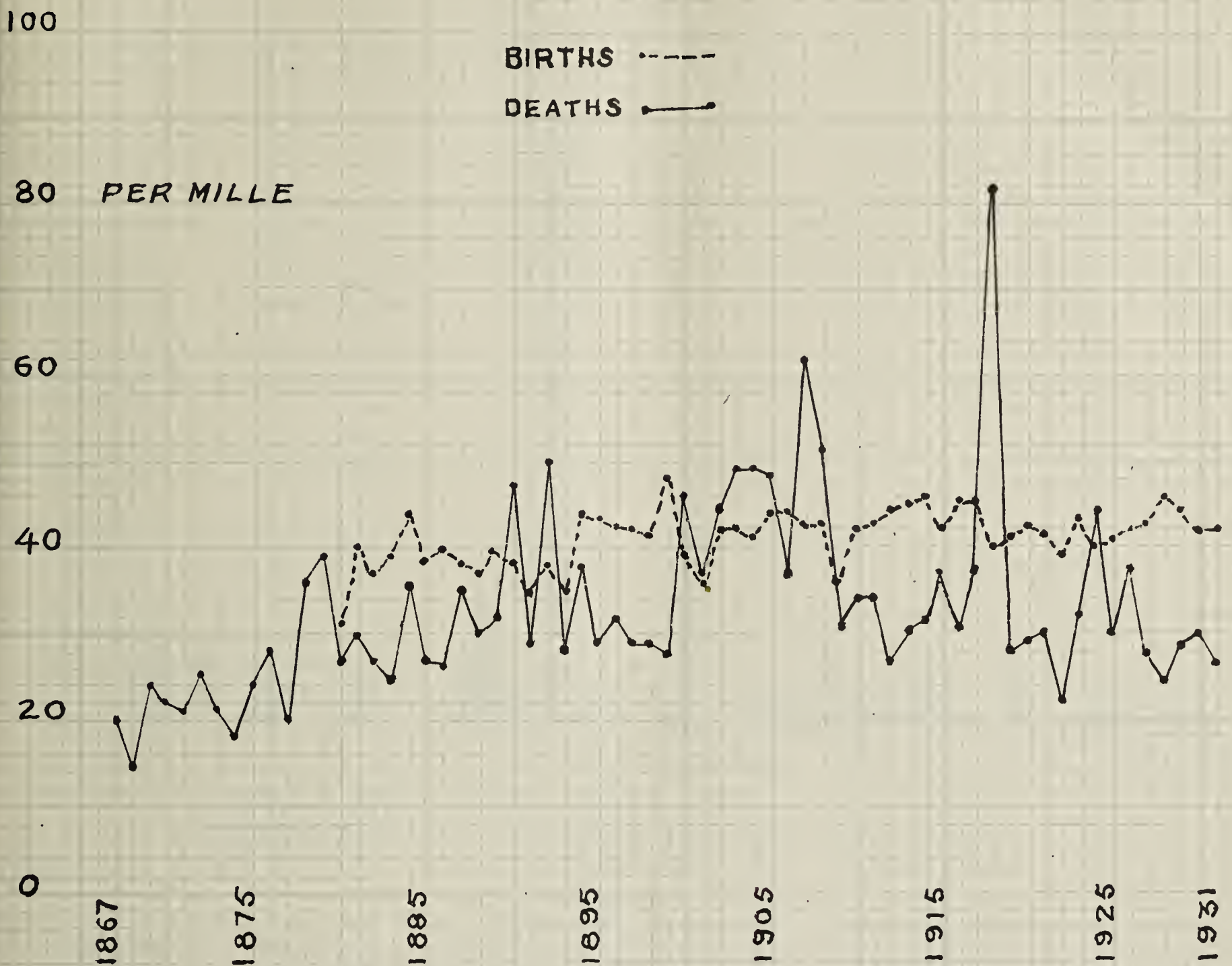






CHART I

# THE BIRTH AND DEATH RATES IN THE PUNJAB. 1867-1931



## INFANTILE MORTALITY RATE IN THE PUNJAB. 1880-1931

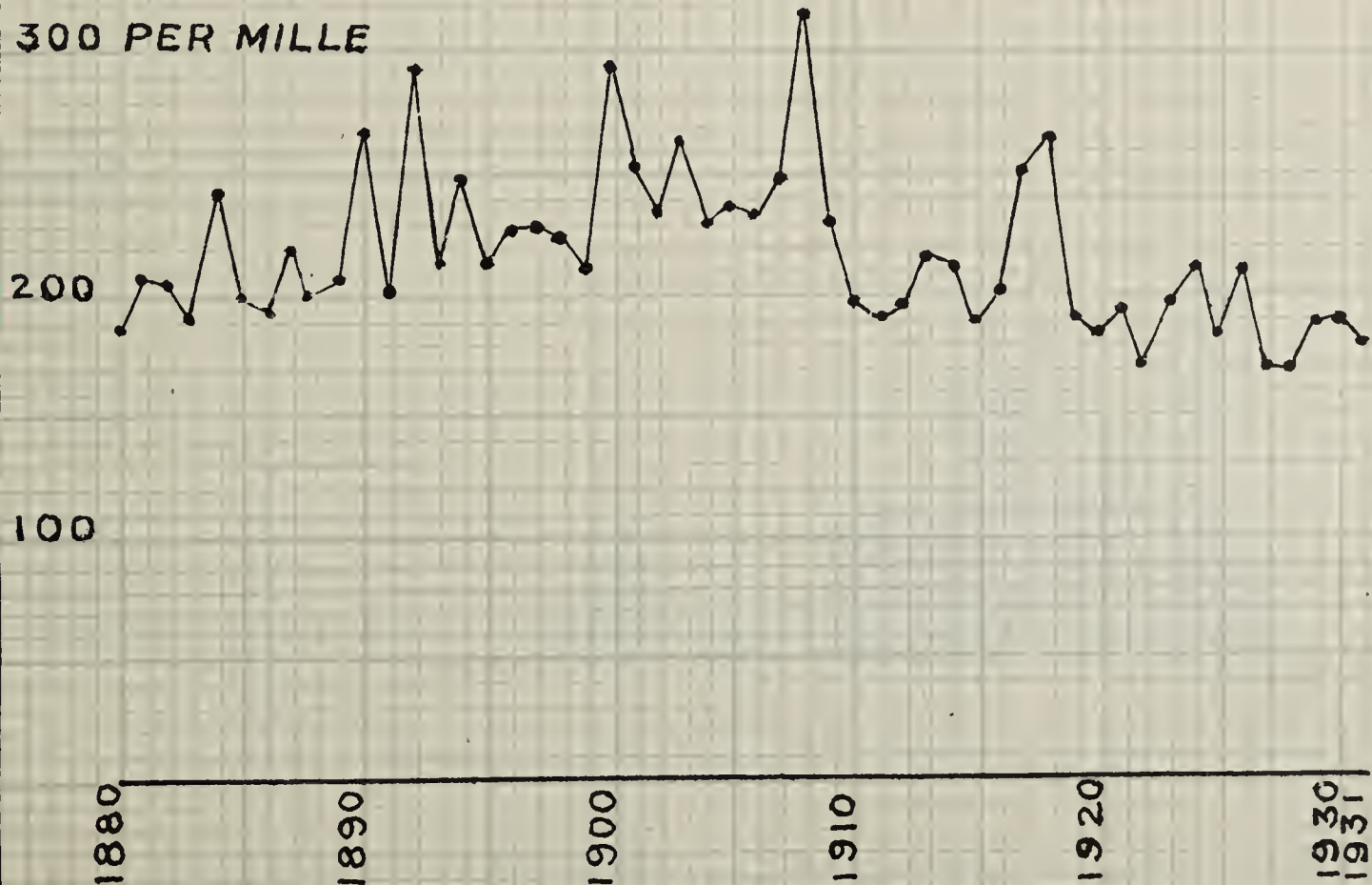




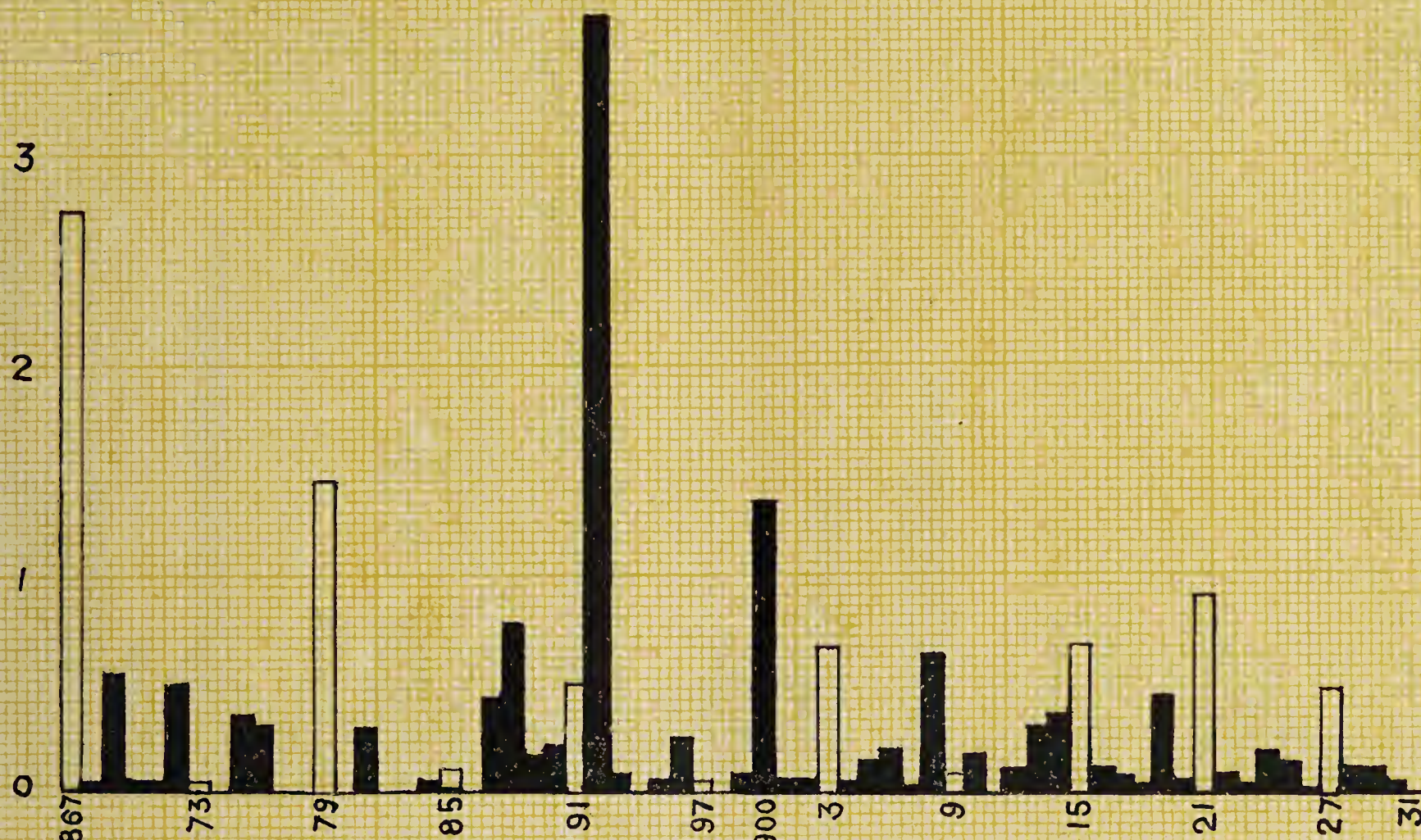




CHART II

# DEATH RATE FROM CHOLERA IN THE PUNJAB 1867-1931

4 PER MILLE



YEARS IN WHICH KUMBH AND ADH KUMBH MELAS  
WERE HELD AT HARDWAR ARE SHOWN BLANK

DIAGRAM SHOWING TOTAL NUMBER OF CASES AND DEATHS FROM  
CHOLERA BY WEEKS IN THE PUNJAB DURING THE YEAR 1931

80

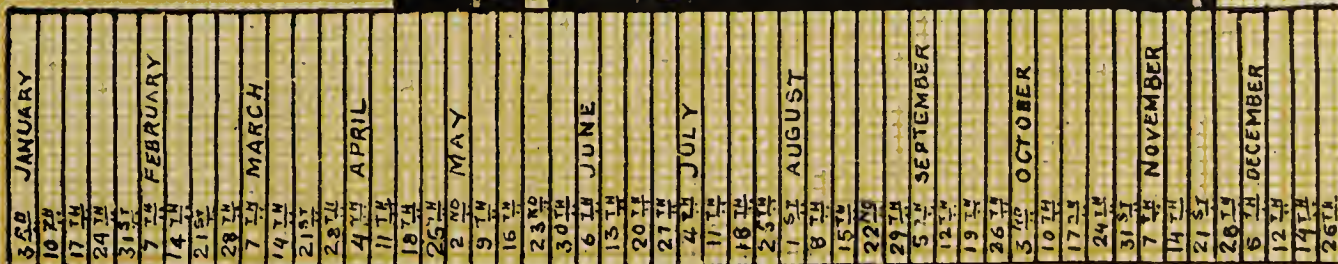
CASES   
DEATHS 

60

40

20

0





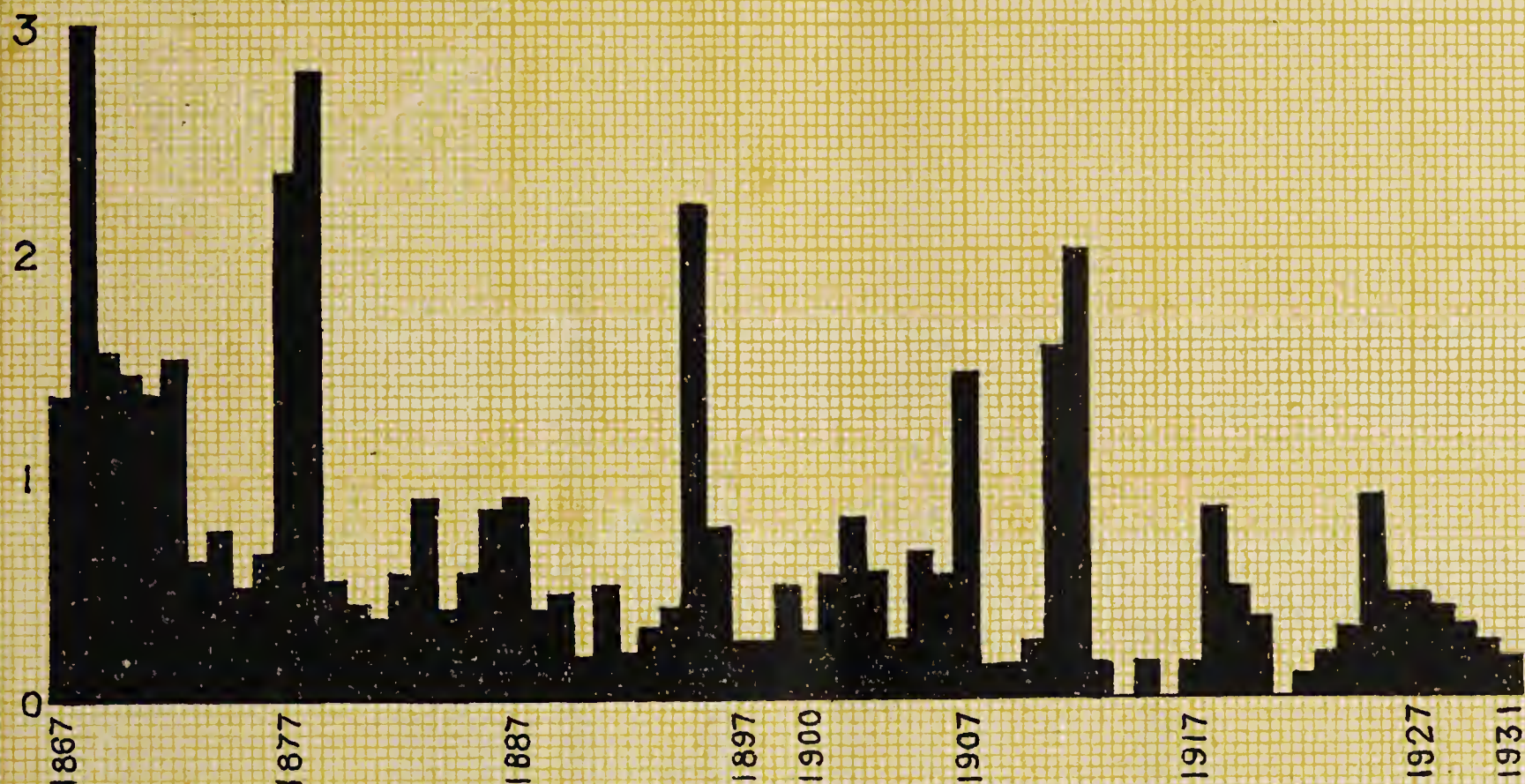




# DEATH RATE FROM SMALLPOX IN THE PUNJAB

4 PER MILLE

1867 - 1931



## DIAGRAM SHOWING TOTAL NUMBER OF CASES AND DEATHS FROM SMALLPOX BY WEEKS IN THE PUNJAB DURING THE YEAR 1931

400

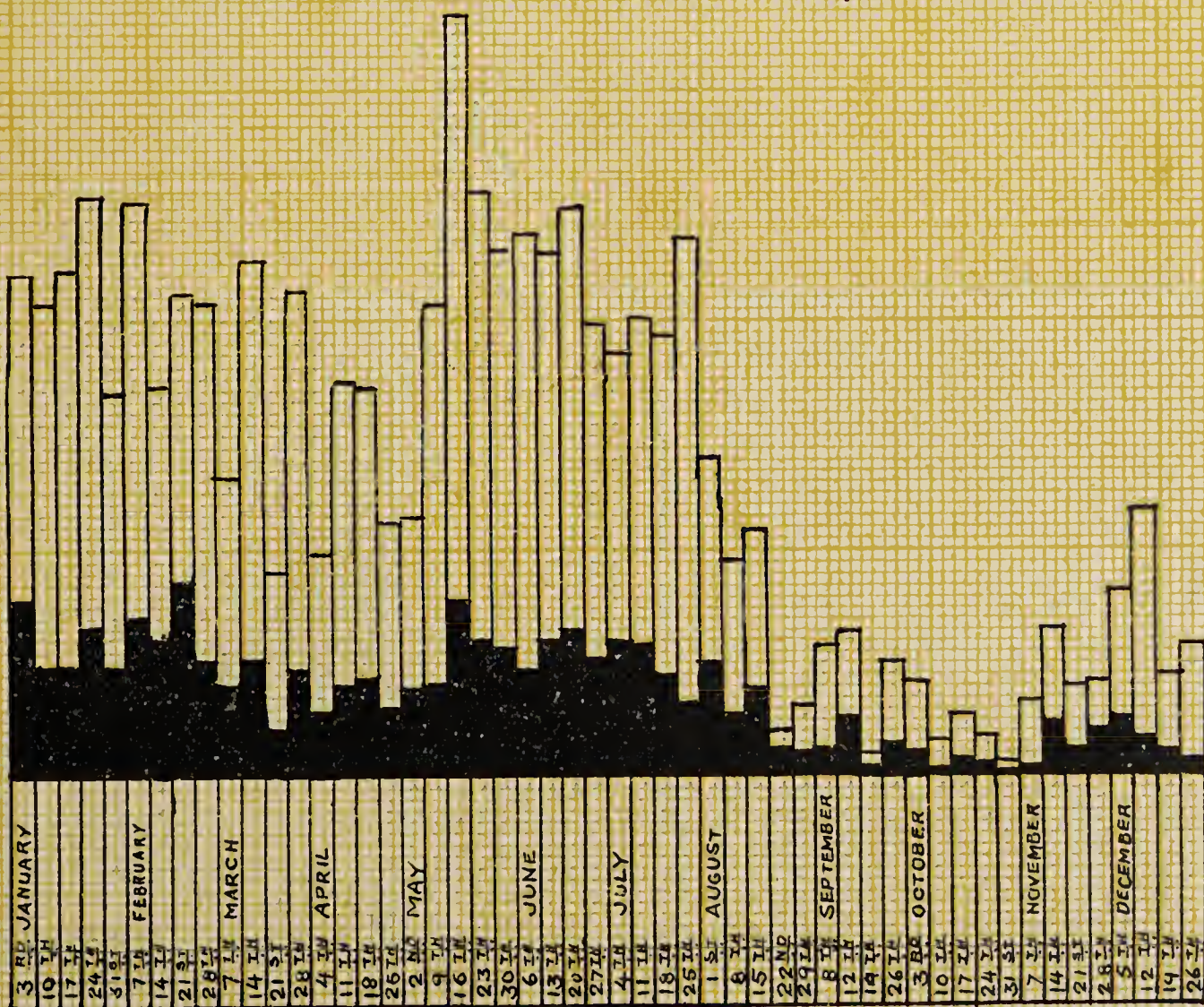
CASES  
DEATHS

300

200

100

0









# ANNUAL PLAGUE DEATH RATE IN THE PUNJAB 1898-1931

40 PER MILLE

30

20

10

0

1898

1908

1918

1928

1931

## DIAGRAM SHOWING TOTAL NUMBER OF CASES AND DEATHS FROM PLAGUE BY WEEKS IN THE PUNJAB DURING THE YER 1931

300

200

100

0

CASES =   
DEATHS = 









CHART V

DEATH RATE FROM FEVERS IN THE PUNJAB  
1867-1931

80 PER MILLE

60

40

20

0









SPLEEN RATE OF THE PUNJAB BY DISTRICTS  
FOR 1931

40  
30  
20  
10  
0  
SPLEEN RATE

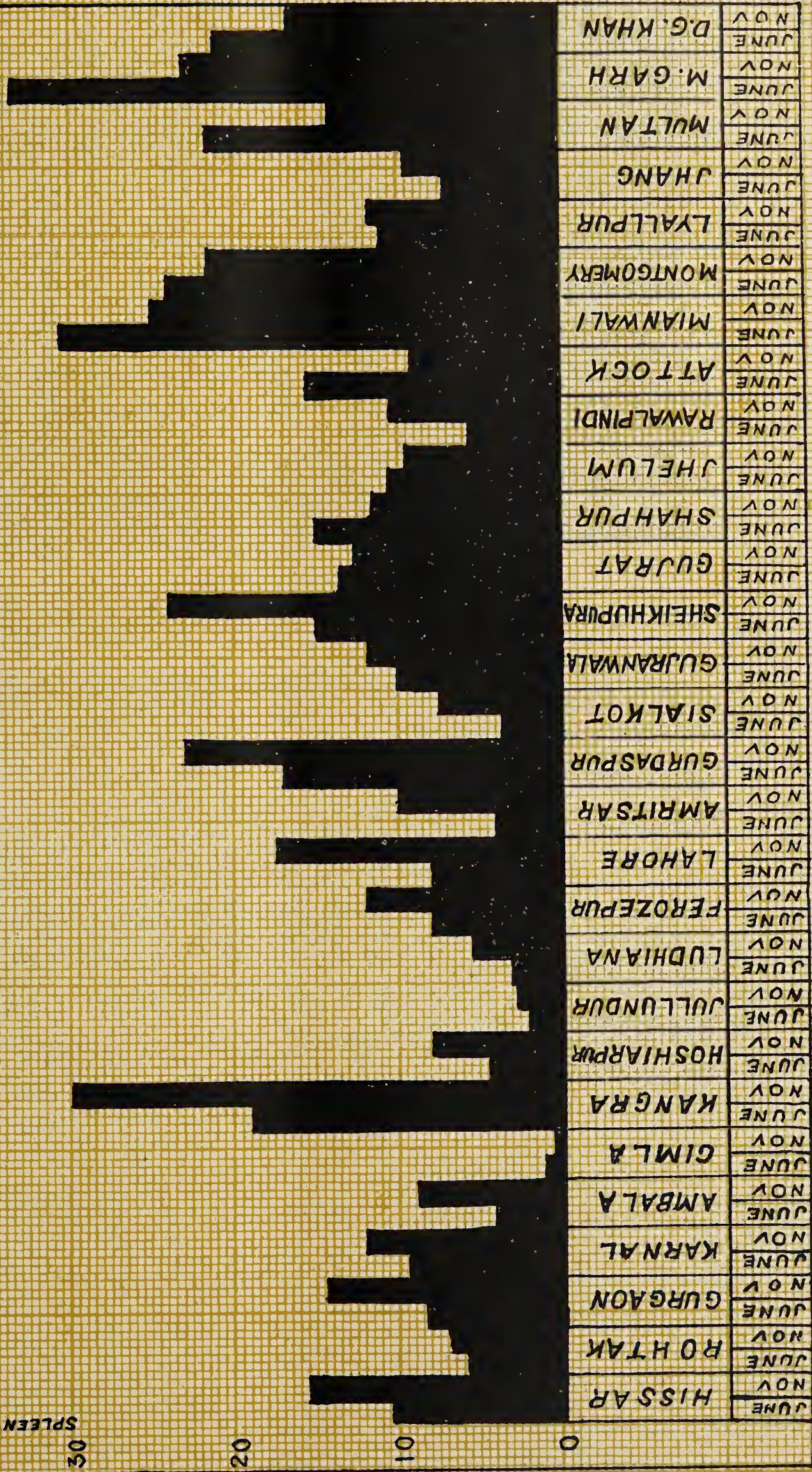










CHART VII

VACCINATION OPERATIONS IN THE PUNJAB FROM 1885-86 TO 1931-32

PRIMARY VACCINATION --   
RE VACCINATION --- 

8,00,000

6,00,000

4,00,000

2,00,000

0

1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

VACCINATION OPERATIONS.

DEATH-RATE

80

4,00

60

3,00

40

2,00

20

1,00

0

0

VACCINATION OPERATIONS IN THE PUNJAB PER 1,000 OF POPULATION AND SMALLPOX DEATH-RATE 1885-86 TO 1931-32.

VACCINATION - OPERATIONS

DEATH-RATE

1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

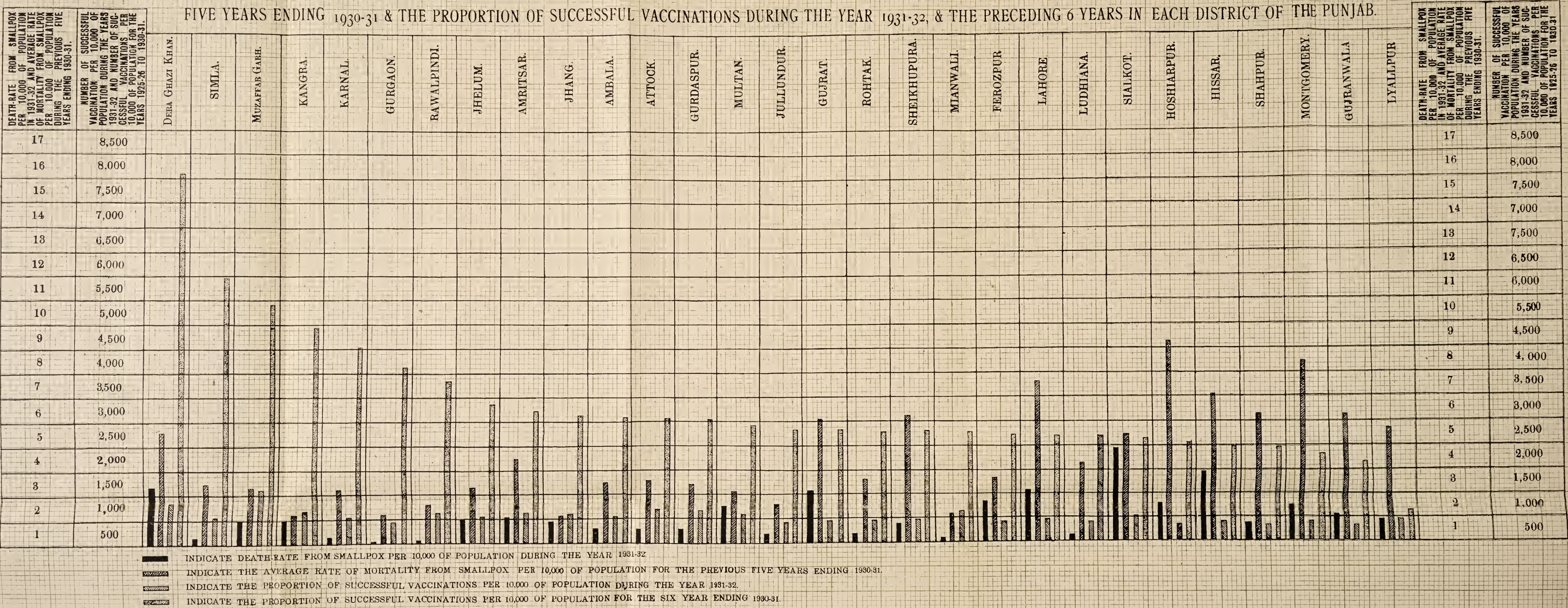






CHART VIII.

DIAGRAM SHOWING THE DEATH-RATE FROM SMALLPOX PER 10,000 OF POPULATION DURING THE YEAR 1931-32, THE AVERAGE RATE OF MORTALITY FROM SMALLPOX PER 10,000 OF POPULATION FOR THE FIVE YEARS ENDING 1930-31 & THE PROPORTION OF SUCCESSFUL VACCINATIONS DURING THE YEAR 1931-32, & THE PRECEDING 6 YEARS IN EACH DISTRICT OF THE PUNJAB.









## ANNUAL FORMS (PUBLIC HEALTH).

## ANNUAL FORM No. I.

STATEMENT SHOWING THE BIRTHS REGISTERED IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1931.

2	3			4			5			6	7	8	9			10
DISTRICTS.	POPULATION ACCORDING TO CENSUS OF 1931.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.			Number.
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.				Males.	Females.	Total.	
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
AMBALA DIVISION.																
Hissar ..	485,637	413,754	899,391	19,173	16,757	35,930	21·3	18·6	40·0	114·4	15·5	..	21·9	19·6	41·5	1
Rohtak ..	432,829	372,742	805,571	19,528	17,765	37,293	4·2	22·1	46·3	109·9	21·8	..	22·0	20·0	42·0	2
Gurgaon ..	398,392	341,508	739,900	19,463	17,556	37,019	26·3	23·7	50·0	110·9	21·8	..	22·6	20·3	42·9	3
Karnal ..	469,840	382,730	852,570	19,416	17,490	36,906	22·8	20·5	43·3	111·0	14·7	..	19·5	17·4	36·9	4
Ambala ..	412,121	319,405	731,526	16,213	14,758	30,971	22·2	20·2	42·3	109·9	12·3	..	19·7	17·8	37·5	5
Simla ..	22,904	12,592	35,496	617	553	*1,170	17·4	15·6	33·0	111·6	6·5	..	15·4	14·4	29·8	6
JULLUNDUR DIVISION.																
Kangra ..	413,925	385,209	799,134	15,626	14,383	30,009	19·6	18·0	37·6	108·6	4·6	..	18·1	17·0	35·1	7
Hoshiarpur	551,861	480,320	1,032,181	23,913	21,376	45,289	23·2	20·7	43·9	111·9	16·2	..	20·7	18·5	39·3	8
Jullundur	507,560	430,165	937,725	22,012	20,327	42,339	23·5	21·7	45·2	108·3	20·5	..	21·0	19·6	40·6	9
Ludhiana..	375,546	296,930	672,476	15,772	14,570	30,342	23·5	21·7	45·1	108·2	17·5	..	20·4	18·9	39·3	10
Ferozepore	627,338	517,381	1,144,719	25,723	22,844	48,567	22·5	20·0	42·4	112·6	11·9	..	20·5	17·9	38·4	11
LAHORE DIVISION.																
Lahore ..	780,984	580,394	1,361,378	27,354	23,910	51,264	20·1	17·6	37·7	114·4	12·4	..	18·6	16·4	35·0	12
Amritsar..	620,235	495,974	1,116,209	26,781	24,266	51,047	24·0	21·7	45·7	110·4	16·9	..	21·8	19·7	41·5	13
Gurdaspur	530,187	438,066	968,253	24,626	22,426	47,052	25·5	23·2	48·6	109·8	17·3	..	22·4	20·8	43·2	14
Sialkot ..	529,654	440,652	970,306	23,932	22,149	46,081	24·7	22·8	47·5	108·1	20·8	..	21·9	20·1	42·0	15
Gujranwala	408,554	327,484	736,038	17,051	15,495	32,546	23·2	21·1	44·2	110·0	17·7	..	20·9	18·6	39·6	16
Sheikhupura	384,366	312,281	696,647	16,505	14,761	31,266	23·7	21·2	44·9	111·8	20·7	..	21·1	18·4	39·5	17
RAWAL-PINDI DIVISION.																
Gujrat ..	498,282	424,048	922,330	19,753	18,121	37,874	21·4	19·6	41·1	109·0	20·8	..	19·1	17·0	36·1	18
Shahpur ..	445,808	375,631	821,439	17,598	15,927	33,525	21·4	19·4	40·8	110·5	16·9	..	19·0	16·8	35·8	19
Jhelum ..	278,757	258,250	537,007	11,282	10,085	21,367	21·0	18·8	39·8	111·9	16·8	..	18·5	16·5	34·9	20
Rawalpindi	331,996	287,964	619,960	13,523	12,043	25,566	21·8	19·4	41·2	112·3	17·3	..	18·5	16·5	34·9	21
Attock ..	304,429	275,746	580,175	11,808	10,336	22,144	20·4	17·8	38·2	114·2	14·6	..	17·7	15·2	32·9	22
Mianwali..	215,904	195,457	411,361	10,045	9,013	19,058	24·4	21·9	46·3	111·5	17·9	..	21·4	19·1	40·5	23
MULTAN DIVISION.																
Montgomery	552,330	447,259	999,589	18,427	16,239	34,666	18·4	16·2	34·7	113·5	14·0	..	17·9	15·3	33·2	24
Lyallpur ..	630,704	520,563	1,151,267	28,313	26,107	54,420	24·6	22·7	47·3	108·4	24·8	..	22·1	20·2	42·4	25
Jhang ..	355,619	309,114	664,733	15,279	13,422	28,701	23·0	20·2	43·2	113·8	18·4	..	20·2	18·0	38·2	26
Multan ..	642,367	528,139	1,170,506	24,490	21,237	45,727	20·9	18·1	39·1	115·3	16·9	..	18·1	15·6	33·7	27
Muzaffargarh	320,660	270,688	591,348	13,034	10,870	23,904	20·0	18·4	40·4	119·9	12·8	..	17·8	14·8	32·6	28
Dera Ghazi Khan.	269,332	221,700	491,032	11,079	9,129	20,208	22·6	18·6	41·2	121·4	15·6	..	17·9	15·1	33·0	29
Total ..	12,798,121	10,662,146	23,460,267	528,336	473,915	1,002,251	22·5	20·1	42·7	111·5	16·7	..	20·1	18·0	38·1	

\* Including 9 births (6 males and 3 females) amongst Europeans.



## STATEMENT OF BIRTHS AND DEATHS REGISTERED IN EACH

1	2	3	4	5			6		7		
Number.	DISTRICTS.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS 1931).			BIRTHS.		NUMBER OF DEATHS REGISTERED.		
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar .. ..	5,213	173	485,637	413,754	899,391	35,930	40·0	11,607	10,433	22,040
2	Rohtak .. ..	2,471	326	432,829	372,742	805,571	37,293	46·3	10,481	9,229	19,710
3	Gurgaon .. ..	2,263	327	398,392	341,508	739,900	37,019	50·0	11,119	9,713	20,832
4	Karnal .. ..	3,125	273	469,840	382,730	852,570	36,906	43·3	12,413	12,001	24,414
5	Ambala .. ..	1,882	106	412,121	319,405	731,526	30,971	42·3	11,559	10,386	21,945
6	Simla .. ..	101	351	22,904	12,592	35,496	*1,170	33·0	535	406	941
	JULLUNDUR DIVISION.										
7	Kangra .. ..	9,976	80	413,925	385,209	799,134	30,009	37·6	13,269	13,063	26,332
8	Hoshiarpur ..	2,247	459	551,861	480,320	1,032,181	45,289	43·9	15,011	13,608	28,619
9	Jullundur .. ..	1,431	655	507,560	430,165	937,725	42,339	45·2	12,053	11,063	23,116
10	Ludhiana .. ..	1,452	463	375,546	296,930	672,476	30,342	45·1	9,682	8,869	18,551
11	Ferozepore ..	4,290	267	627,338	517,381	1,144,719	48,567	42·4	18,722	16,154	34,876
	LAHORE DIVISION.										
12	Lahore .. ..	2,682	508	780,984	580,394	1,361,378	51,264	37·7	18,537	15,833	34,370
13	Amritsar .. ..	1,593	701	620,235	495,974	1,116,209	51,047	45·7	17,124	14,983	32,107
14	Gurdaspur .. ..	1,889	513	530,187	438,066	968,253	47,052	48·6	15,941	14,367	30,308
15	Sialkot .. ..	1,578	615	529,654	440,652	970,306	46,081	47·5	13,721	12,179	25,900
16	Gujranwala ..	2,309	319	408,554	327,484	736,038	32,546	44·2	10,349	9,163	19,512
17	Sheikhupura ..	2,302	303	384,366	312,281	696,647	31,266	44·9	9,323	7,557	16,880
	RAWALPINDI DIVISION.										
18	Gujrat .. ..	2,250	410	498,282	424,048	922,330	37,874	41·1	9,914	8,762	18,676
19	Shahpur .. ..	4,789	172	445,808	375,631	821,439	33,525	40·8	10,581	9,038	19,619
20	Jhelum .. ..	2,773	194	278,757	258,250	537,007	21,367	39·8	6,600	5,759	12,359
21	Rawalpindi ..	2,023	306	331,996	287,964	619,960	25,566	41·2	7,993	6,821	14,814
22	Attock .. ..	4,117	141	304,429	275,746	580,175	22,144	38·2	7,429	6,247	13,676
23	Mianwali .. ..	5,395	76	215,904	195,457	411,361	19,058	46·3	6,298	5,394	11,692
	MULTAN DIVISION.										
24	Montgomery ..	4,518	221	552,330	447,259	999,589	34,666	34·7	11,289	9,366	20,655
25	Lyallpur .. ..	3,224	357	630,704	520,563	1,151,267	54,420	47·3	13,382	12,530	25,912
26	Jhang .. ..	3,452	193	355,619	309,114	664,733	28,701	43·2	8,818	7,654	16,472
27	Multan .. ..	5,892	199	642,367	528,139	1,170,506	45,727	39·1	13,873	12,113	25,986
28	Muzaffargarh ..	6,052	98	320,660	270,688	591,348	23,904	40·4	8,672	7,655	16,327
29	Dera Ghazi Khan ..	5,325	92	269,332	221,700	491,032	20,208	41·2	6,939	5,636	12,575
	Total .. ..	96,614	243	12,798,121	10,662,146	23,460,267	1,002,251	42·7	323,234	285,982	609,216

NOTE.—Those born dead are not included  
\* Including 9 births



NO. II.  
DISTRICT OF THE PUNJAB DURING THE YEAR 1931.

8	9											10		11	
Number of deaths of males to every 100 deaths of females.	DEATHS PER 1,000 OF POPULATION FROM											MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.			Number.
	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Males.	Females.	Total.	
									Males.	Females.	Total.				
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
111.3	0.002	0.3	..	16.2	0.4	1.1	0.04	6.5	23.9	25.2	24.5	27.6	24.4	28.0	1
113.6	0.01	0.2	..	18.0	0.3	1.6	0.3	4.2	24.2	24.8	24.5	33.2	33.6	33.4	2
114.4	..	0.01	..	17.2	0.3	2.0	0.4	8.2	27.9	28.4	28.2	34.5	36.5	35.4	3
103.4	0.001	0.1	..	21.5	0.5	1.3	0.2	5.2	26.4	31.4	28.6	32.5	35.9	34.0	4
111.3	0.01	0.1	..	15.2	0.5	7.3	0.03	6.8	28.1	32.5	30.0	27.1	31.1	28.8	5
131.8	0.1	0.03	..	5.3	2.5	8.6	0.3	9.8	23.4	32.2	26.5	21.4	31.1	24.8	6
101.6	0.02	0.01	..	14.9	4.7	7.1	0.9	5.3	32.1	33.9	33.0	29.4	29.5	29.4	7
110.3	0.02	0.2	0.6	20.1	0.6	2.3	0.1	3.8	27.2	28.3	27.7	27.5	28.5	28.0	8
108.9	0.02	0.1	0.003	17.3	0.3	1.8	0.3	4.9	23.8	25.7	24.7	23.2	25.4	24.2	9
109.2	0.02	0.1	..	15.8	0.2	1.9	..	9.6	25.8	29.9	27.6	23.5	27.0	25.1	10
115.9	0.01	0.3	..	20.4	0.4	2.3	0.1	7.0	29.8	31.2	30.5	24.7	25.2	25.0	11
117.1	0.1	0.3	0.001	15.1	0.9	2.8	0.2	5.9	23.7	27.3	25.3	22.0	25.6	23.5	12
114.3	0.04	0.1	..	18.9	0.3	3.8	0.3	5.4	27.6	30.2	28.8	27.5	30.6	28.8	13
110.8	0.02	0.1	0.2	19.1	1.6	3.1	0.3	7.0	30.1	32.8	31.3	27.8	29.7	28.7	14
107.4	0.1	0.5	0.4	16.7	0.5	3.9	0.2	4.4	25.9	27.6	26.7	25.3	27.4	26.2	15
112.9	0.03	0.1	..	21.8	0.1	1.1	0.3	3.1	25.3	28.0	26.5	25.9	27.6	26.7	16
123.4	0.02	0.1	0.001	19.1	0.1	0.6	0.3	4.0	24.3	24.2	24.2	22.5	23.3	22.8	17
113.1	0.01	0.4	..	15.3	0.1	1.6	0.2	2.7	19.9	20.7	20.3	21.8	22.5	22.2	18
117.1	0.01	0.1	..	16.4	0.3	3.1	0.3	3.7	23.7	24.1	23.9	23.8	25.4	24.5	19
114.6	..	0.1	..	16.5	0.2	2.1	0.5	3.7	23.7	22.3	23.0	23.9	23.6	23.7	20
117.2	0.001	0.01	..	15.2	2.9	3.0	0.4	2.4	24.1	23.7	23.9	21.7	22.9	22.2	21
118.9	..	0.1	..	18.3	0.03	1.9	0.1	3.1	24.4	22.7	23.6	23.0	22.8	22.9	22
116.8	..	0.04	..	23.9	0.2	1.0	0.3	3.0	29.2	27.6	28.4	27.2	27.1	27.2	23
120.5	0.02	0.1	0.001	16.7	0.1	0.9	0.3	2.6	20.4	20.9	20.7	18.9	20.2	19.5	24
106.8	0.01	0.1	..	16.3	0.1	1.1	0.2	4.8	21.2	24.1	22.5	20.4	22.7	21.4	25
115.2	..	0.1	..	15.5	0.3	3.1	0.3	5.5	24.8	24.8	24.8	22.2	22.6	22.4	26
114.5	0.01	0.2	..	16.9	0.6	1.6	0.3	2.6	21.6	22.9	22.2	19.7	20.9	20.2	27
113.3	0.01	0.1	..	25.0	0.2	0.6	0.3	1.5	27.0	28.3	27.6	25.2	25.8	25.5	28
123.1	..	0.2	..	21.5	0.3	0.8	0.3	2.5	25.8	25.4	25.6	23.5	23.6	23.6	29
113.0	0.02	0.2	0.1	17.8	0.6	2.4	0.3	4.8	25.3	26.8	26.0	25.0	26.6	25.7	

in this or in any other statement.  
amongst Europeans.



## ANNUAL FORM No. III.

DEATHS REGISTERED IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1931.

1	2	3												4	
Number.	DISTRICTS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.	Number.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	<b>AMBALA DIVISION.</b>														
1	Hissar ..	2,153	1,825	2,043	1,582	1,619	1,810	1,730	1,545	2,050	2,014	1,827	1,842	22,040	1
2	Rohtak ..	1,544	1,501	1,617	1,650	1,822	1,584	1,376	1,258	1,536	1,850	2,174	1,798	19,710	2
3	Gurgaon ..	1,721	1,537	1,500	1,373	1,610	1,623	1,453	1,334	1,898	2,463	2,397	1,923	20,832	3
4	Karnal ..	1,955	1,714	1,955	1,772	2,119	2,223	1,779	1,302	1,809	2,518	2,858	2,410	24,414	4
5	Ambala ..	1,678	1,444	1,719	1,702	2,013	1,982	1,761	1,193	1,502	2,396	2,600	1,955	21,945	5
6	Simla ..	75	48	61	67	112	125	86	89	91	89	55	43	941	6
	<b>JULLUNDUR DIVISION.</b>														
7	Kangra ..	1,979	1,935	2,340	1,972	2,803	2,545	2,022	1,702	2,086	2,605	2,331	2,012	26,332	7
8	Hoshiarpur ..	2,551	2,031	2,189	2,369	2,644	2,375	2,191	1,821	2,456	2,777	2,772	2,443	28,619	8
9	Jullundur ..	1,866	1,600	1,540	1,483	1,814	1,895	2,140	1,973	2,256	2,270	2,304	1,975	23,116	9
10	Ludhiana ..	1,504	1,132	1,233	1,211	1,455	2,008	1,874	1,290	1,448	1,852	2,002	1,542	18,551	10
11	Ferozepore ..	3,160	2,879	2,718	2,283	2,668	2,309	2,588	2,331	2,616	3,574	4,356	3,394	34,876	11
	<b>LAHORE DIVISION.</b>														
12	Lahore ..	2,854	2,466	2,449	2,199	2,616	2,656	2,566	2,706	2,344	3,467	4,391	3,656	34,370	12
13	Amritsar ..	2,325	1,900	1,978	1,906	2,792	2,830	2,675	2,482	2,958	3,474	3,654	3,133	32,107	13
14	Gurdaspur ..	2,201	1,881	1,827	1,751	2,296	2,266	2,140	1,940	2,769	4,163	4,139	2,935	30,308	14
15	Sialkot ..	2,385	1,771	1,606	1,530	2,028	1,637	1,708	1,939	2,652	3,417	2,891	2,336	25,900	15
16	Gujranwala ..	2,388	1,523	1,358	880	1,302	1,239	1,103	1,353	1,418	2,018	2,374	2,526	19,512	16
17	Sheikhupura ..	1,575	1,206	1,143	857	1,262	1,245	1,140	1,323	1,452	1,691	1,924	2,062	16,880	17
	<b>RAWALPINDI DIVISION.</b>														
18	Gujrat ..	2,356	1,716	1,361	1,106	1,329	1,313	1,220	1,327	1,571	1,661	1,858	1,858	18,676	18
19	Shahpur ..	2,667	2,301	1,848	1,532	1,511	1,486	1,164	1,297	1,197	1,168	1,443	2,005	19,619	19
20	Jhelum ..	1,707	1,297	1,000	785	772	840	737	834	850	1,069	1,164	1,304	12,359	20
21	Rawalpindi ..	1,953	1,435	1,306	979	922	927	951	997	1,120	1,170	1,373	1,681	14,814	21
22	Attock ..	1,913	1,503	1,282	973	823	852	838	873	902	967	1,129	1,621	13,676	22
23	Mianwali ..	1,503	1,428	1,215	733	782	760	669	692	738	888	1,062	1,222	11,692	23
	<b>MULTAN DIVISION.</b>														
24	Montgomery ..	2,551	2,055	2,098	1,349	1,585	1,336	1,124	1,142	1,273	1,504	2,051	2,587	20,655	24
25	Lyallpur ..	2,574	2,298	1,936	1,583	2,434	2,197	1,750	2,195	2,197	2,113	2,340	2,295	25,912	25
26	Jhang ..	2,149	1,854	1,750	1,220	1,222	1,143	1,005	1,183	1,019	1,062	1,213	1,652	16,472	26
27	Multan ..	2,935	2,760	2,707	2,238	2,373	1,887	1,565	1,528	1,612	1,594	2,082	2,705	25,986	27
28	Muzaffargarh ..	1,829	1,808	1,943	1,159	1,241	1,065	910	824	827	1,117	1,512	2,092	16,327	28
29	Dera Ghazi Khan.	1,510	1,505	1,378	913	927	775	676	655	790	843	1,121	1,482	12,575	29
	Total for the Province.	59,561	50,353	49,100	41,157	48,896	46,933	42,941	41,128	47,437	57,824	63,397	60,489	609,216	
	Ratio of deaths per 1,000 in each month.	2.54	2.15	2.09	1.75	2.08	2.00	1.83	1.75	2.02	2.46	2.70	2.58	25.97	







ANNUAL FORM No. IV—CONCLUDED.

DEATHS REGISTERED ACCORDING TO AGE IN THE DISTRICTS OF THE PUNJAB PROVINCE DURING THE YEAR 1931—CONCLD.

1	2	5		6		7		8		9		10		11		12		13	
No.	District.	5 AND UNDER 10 YEARS.		10 AND UNDER 15 YEARS.		15 AND UNDER 20 YEARS.		20 AND UNDER 30 YEARS.		30 AND UNDER 40 YEARS.		40 AND UNDER 50 YEARS.		50 AND UNDER 60 YEARS.		60 YEARS AND UPWARDS.		TOTAL.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		
1	2	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
1	AMBALA DIVN.																		
1	Hissar	590	576	527	499	440	480	625	671	706	743	1,096	1,041	1,266	1,068	2,675	1,915	11,607	10,433
2	Rohatak	553	514	383	351	328	338	765	669	500	792	633	621	700	640	1,475	1,210	10,481	9,229
3	Gurgaon	303	211	399	327	551	469	1,076	1,061	759	792	871	694	436	394	1,454	1,265	11,119	9,713
4	Karnal	1,063	898	942	875	814	796	747	765	613	689	893	933	1,052	1,211	1,631	1,772	12,413	12,001
5	Ambala	752	754	666	687	796	711	799	892	830	740	829	669	647	595	1,451	1,229	11,559	10,386
6	Simla	13	27	9	16	19	40	52	62	63	37	54	20	34	9	86	48	535	406
7	JULLUNDUR DIVISION.																		
7	Kangra	771	820	818	916	994	999	1,152	1,030	1,198	1,139	1,310	1,188	1,431	1,289	1,664	1,509	13,269	13,063
8	Hoshiarpur	656	638	399	444	417	525	693	995	698	788	798	648	931	668	3,149	2,488	15,011	13,608
9	Jullundur	459	369	221	248	211	316	516	667	434	451	509	375	631	452	2,723	2,074	12,053	11,063
10	Ludhiana	643	642	509	492	462	414	461	396	426	360	398	385	500	456	1,146	886	9,682	8,869
11	Ferozepore	885	819	551	548	697	687	1,055	1,072	1,054	935	1,205	865	1,233	949	1,987	1,533	18,722	16,154
12	LAHORE DIVISION.																		
12	Lahore	1,202	1,135	1,043	959	931	917	1,111	914	1,039	888	1,017	812	1,008	774	2,535	2,251	18,537	15,833
13	Amritsar	847	824	700	688	763	759	946	939	954	880	1,016	930	1,191	1,011	2,284	1,876	17,124	14,983
14	Gurdaspur	973	931	764	775	858	861	921	1,015	1,012	918	1,022	884	1,114	901	2,006	1,638	15,941	14,367
15	Sialkot	472	454	470	435	508	426	1,888	1,809	1,563	1,445	1,246	1,117	877	795	642	589	13,721	12,179
16	Gujranwala	594	533	615	600	704	601	704	641	777	668	772	666	806	706	830	693	10,349	9,163
17	Sheikhpura	512	455	286	272	291	252	492	467	424	375	430	322	415	266	1,305	1,001	9,323	7,557
18	RAWALPINDI DIVISION.																		
18	Gujrat	903	830	921	776	916	846	909	873	862	707	777	681	766	647	1,156	979	9,914	8,762
19	Shahpur	530	517	325	311	315	274	627	742	671	716	672	530	752	530	1,800	1,308	10,581	9,038
20	Jhelum	327	342	207	237	201	181	387	434	435	464	511	377	502	341	1,391	1,068	6,600	5,759
21	Rawalpindi	711	585	407	342	241	199	208	192	391	349	599	517	767	655	1,216	1,074	7,993	6,821
22	Attock	433	366	321	307	383	346	623	542	584	557	592	449	641	486	1,200	921	7,429	6,247
23	Mianwali	345	320	186	150	170	157	415	441	386	407	365	347	476	366	1,056	772	6,298	5,394
24	MULTAN DIVISION.																		
24	Montgomery	649	591	362	346	297	289	590	596	583	624	635	459	668	493	1,706	1,230	11,289	9,366
25	Lyallpur	870	828	541	596	467	462	534	609	462	483	412	394	467	397	1,797	1,505	13,382	12,530
26	Jhang	448	496	310	312	234	246	493	562	514	583	564	460	544	406	1,513	1,119	8,818	7,654
27	Multan	869	725	589	554	566	580	856	1,017	916	973	865	707	915	650	1,813	1,401	13,873	12,113
28	Muzaffargarh	737	659	685	585	608	618	584	581	550	548	585	486	560	440	694	460	8,672	7,655
29	Dera Ghazi Khan..	461	356	221	169	185	139	456	588	439	568	519	407	500	293	805	535	6,939	5,636
Total for the Province		18,571	17,215	14,377	13,817	14,367	13,928	20,685	21,242	19,843	19,619	21,195	17,984	21,862	17,888	45,190	36,351	322,234	285,982
Population		1,691,328	1,452,504	1,571,550	1,279,544	1,203,432	986,825	2,233,334	1,861,179	1,677,452	1,304,556	1,156,766	908,565	761,208	575,818	676,262	499,980	12,880,510	10,900,342
Ratios per 1,000 of population		10.98	11.85	9.15	10.71	11.94	14.11	9.26	11.41	11.83	15.04	18.32	19.79	28.70	31.07	66.82	72.71	25.09	26.73



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ANNUAL FORM No. V.

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS  
IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1931.

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## DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS

1		2		3							
Number.	DISTRICTS.	POPULATION ACCORDING TO THE CENSUS OF 1931.									
		Muhammadans.		Hindus.		Indian Chsristians.		Other Classes.		Total.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12
1	Hissar ..	135,840	117,944	349,257	295,320	583	524	10	1	485,690	413,789
2	Dohtak ..	72,820	65,060	357,583	305,351	2,452	2,355	..	..	432,855	372,766
3	Gurgaon ..	129,479	112,878	268,301	228,038	730	733	3	1	398,513	341,650
4	Karnal ..	141,372	118,358	324,973	261,431	806	663	2,719	2,292	469,870	382,744
5	Ambala ..	126,913	103,924	285,157	219,659	4,284	2,857	57	51	416,411	326,491
6	Simla ..	4,346	1,464	18,372	11,050	788	752	11	3	23,517	13,269
7	Kangra ..	22,486	17,997	378,434	355,271	316	260	14,052	12,496	415,288	386,024
8	Hoshiarpur ..	174,351	153,727	314,534	273,982	2,083	1,681	60,899	50,930	551,867	480,320
9	Jullundur ..	223,611	195,945	225,350	180,842	2,714	1,609	60,992	52,658	512,667	431,054
10	Ludhiana ..	130,149	105,449	231,615	182,074	1,098	1,379	9,698	8,032	375,560	296,934
11	Ferozepore ..	280,323	235,107	331,865	266,080	4,381	2,689	19,687	16,600	636,256	520,476
12	Lahore ..	464,043	351,777	297,469	207,004	32,107	24,990	770	410	794,389	584,181
13	Amritsar ..	290,387	234,289	321,664	253,951	8,862	7,757	127	83	621,040	496,080
14	Gurdaspur ..	268,771	224,445	235,892	191,998	23,702	19,541	3,570	2,979	531,935	438,963
15	Sialkot ..	333,637	275,996	167,076	136,510	36,579	29,786	9	24	537,301	442,316
16	Gujranwala ..	287,794	233,549	93,869	71,559	26,940	22,424	3	..	408,606	327,532
17	Sheikhupura ..	244,064	201,932	106,948	82,775	26,895	22,371	6,483	5,264	384,390	312,342
18	Gujrat ..	425,716	361,034	70,238	61,328	1,746	1,351	636	378	498,336	424,091
19	Shahpur ..	367,879	311,667	70,849	58,209	6,223	5,071	885	707	445,836	375,654
20	Jhelum ..	251,656	230,441	30,670	27,637	388	284	..	..	282,714	258,362
21	Rawalpindi ..	279,287	245,678	58,514	43,313	4,924	2,562	46	33	342,771	291,586
22	Attock ..	279,546	252,247	26,912	24,544	490	220	1	..	306,949	277,011
23	Mianwali ..	187,872	169,237	27,930	26,115	211	169	3	2	216,016	195,523
24	Montgomery ..	381,956	315,586	151,734	117,123	9,618	7,627	9,148	6,980	552,456	447,316
25	Lyalpur ..	389,159	331,837	188,462	145,650	24,899	20,619	28,229	22,496	630,749	520,602
26	Jhang ..	297,801	255,052	57,550	53,850	267	227	53	33	355,671	309,162
27	Multan ..	515,218	427,719	122,107	94,888	5,780	4,144	2,920	2,124	646,025	528,875
28	Muzaffargarh ..	279,319	233,946	41,222	36,642	133	113	..	..	320,674	270,701
29	Dera Ghazi Khan ..	255,817	206,563	30,322	27,953	19	12	..	..	286,158	234,528
	Total ..	7,241,612	6,090,848	5,187,869	4,240,147	230,018	184,770	221,011	184,577	12,880,510	10,700,342
	Population according to Census of 1931.										
	Ratio per 1,000 living for the Province.										Not



No. V.

IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1931.

4																1
UNDER ONE YEAR.																
UNDER ONE WEEK.								OVER ONE WEEK.								
Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	1
155	107	200	200	..	..	..	..	150	100	201	198	..	..	..	..	1
125	89	712	539	..	..	..	..	114	77	548	406	..	..	..	..	2
238	184	691	550	..	1	..	..	157	131	531	415	..	..	..	..	3
304	296	558	472	..	..	..	..	234	219	461	441	..	..	..	..	4
290	199	295	300	..	..	..	..	400	200	278	369	..	..	..	..	5
4	7	38	20	1	1	1	..	3	6	19	13	1	1	..	1	6
80	73	775	758	..	..	..	..	69	79	642	668	..	..	..	..	7
314	220	881	842	..	..	..	..	312	211	571	527	..	..	..	..	8
636	547	843	829	..	..	..	..	416	324	409	465	..	..	..	..	9
512	499	669	528	4	3	..	..	310	333	575	476	2	2	..	..	10
902	752	960	825	2	1	6	3	505	375	522	484	1	..	3	4	11
820	648	400	270	15	10	12	8	769	482	340	355	10	14	7	11	12
883	717	728	553	13	11	17	13	603	527	440	379	11	7	13	9	13
590	470	664	580	25	10	..	..	411	300	542	530	13	43	..	..	14
520	406	290	240	84	54	..	..	380	394	263	145	69	46	..	..	15
432	385	158	113	40	32	1	1	350	335	128	94	34	26	..	..	16
471	405	179	91	50	36	27	8	359	310	150	82	32	30	21	7	17
302	215	60	43	3	..	..	..	167	260	33	33	1	..	..	..	18
614	493	117	75	12	9	6	2	611	420	87	111	7	7	4	3	19
463	405	40	22	4	..	..	..	369	342	27	24	..	..	..	..	20
421	364	54	52	2	1	..	..	413	362	50	46	3	1	1	..	21
691	534	8	7	..	..	..	..	495	453	2	5	..	..	..	..	22
501	383	65	35	..	..	..	..	409	331	56	31	..	..	..	..	23
774	450	360	307	6	2	8	7	527	451	355	333	9	4	7	5	24
513	617	725	575	139	57	79	1	479	529	608	453	37	11	..	4	25
723	605	107	89	..	..	..	..	599	410	119	83	..	..	..	..	26
750	684	173	86	14	9	20	13	717	577	181	128	10	7	17	7	27
520	445	118	93	..	..	..	..	571	491	54	88	..	..	..	..	28
330	217	76	56	..	..	2	1	427	263	87	51	..	..	1	1	29
13,878	11,416	10,944	9,150	414	237	179	57	11,326	9,292	8,319	7,433	240	199	74	52	
available																



DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE

1	2	4—concl'd.															
Number.	DISTRICTS.	UNDER ONE YEAR—CONCLUDED.															
		OVER ONE MONTH AND NOT EXCEEDING SIX MONTHS.								OVER SIX MONTHS AND UNDER TWELVE MONTHS.							
		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indian Christians.		Other Classes.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
1	Hissar .. ..	350	391	620	500	..	..	..	..	260	333	705	600	..	..	..	..
2	Rohtak .. ..	166	154	826	651	..	..	..	..	145	135	707	550	..	..	..	..
3	Gurgaon .. ..	331	229	700	590	..	..	..	..	216	189	524	445	..	..	..	..
4	Karnal .. ..	445	251	542	534	..	..	..	..	268	168	552	544	..	..	..	..
5	Ambala .. ..	400	300	550	500	..	..	..	..	360	300	503	519	..	..	..	..
6	Simla .. ..	3	5	46	23	1	..	1	..	3	2	28	16	1	..	1	1
7	Kangra .. ..	68	69	715	790	..	..	..	..	72	95	748	786	..	..	..	..
8	Hoshiarpur ..	356	437	727	479	3	2	..	..	221	368	1,016	746	5	4	..	..
9	Jullundur .. ..	380	380	517	443	..	..	..	..	389	370	566	550	..	..	..	..
10	Ludhiana .. ..	301	313	535	551	2	3	..	..	299	310	525	511	1	1	..	..
11	Ferozepore ..	612	507	739	607	3	1	18	16	1,112	1,009	1,207	1,120	..	1	17	15
12	Lahore .. ..	856	656	480	460	29	34	21	20	926	798	740	600	39	30	23	19
13	Amritsar .. ..	609	487	681	543	7	15	18	18	839	689	854	735	12	17	19	16
14	Gurdaspur .. ..	630	530	670	580	22	18	..	..	780	715	635	550	20	18	..	..
15	Sialkot .. ..	890	795	377	258	105	95	..	..	780	691	291	163	90	70	..	..
16	Gujranwala ..	603	542	165	112	59	57	..	..	614	542	123	106	50	54	1	..
17	Sheikhupura ..	516	484	211	151	63	48	25	11	521	467	195	121	55	41	22	9
18	Gujrat .. ..	636	496	31	24	1	1	..	..	461	420	53	58	1	..	..	..
19	Shahpur .. ..	770	611	108	81	12	10	8	3	517	455	77	58	13	6	2	2
20	Jhelum .. ..	454	413	48	28	..	..	..	..	296	207	23	26	..	..	..	..
21	Rawalpindi ..	498	393	77	61	2	2	1	1	553	477	78	71	1	..	..	..
22	Attock .. ..	384	274	18	9	..	..	..	..	189	175	9	16	..	..	..	..
23	Mianwali .. ..	576	456	71	58	..	..	..	..	257	233	35	28	..	..	..	..
24	Montgomery ..	559	562	305	114	10	9	6	5	536	358	103	172	7	5	4	3
25	Lyallpur .. ..	570	357	535	595	19	11	..	4	672	685	328	375	41	20	3	8
26	Jhang .. ..	695	530	116	109	..	..	..	..	288	269	123	109	1	..	..	..
27	Multan .. ..	945	867	266	136	4	3	20	19	901	650	156	224	20	18	5	3
28	Muzaffargarh ..	612	559	100	94	..	..	..	..	502	461	87	85	..	..	..	..
29	Dera Ghazi Khan ..	740	576	135	91	..	..	6	6	323	263	54	33	..	..	2	1
	Total ..	14,955	12,624	10,911	9,172	342	309	124	103	13,300	11,834	11,045	9,917	357	285	99	77
	Population according to Census of 1931.																
	Ratio per 1,000 living for the Province.																

Not available.



[o. V.—CONTINUED.

PERIODS IN THE DISTRICT SOF THE PUNJAB DURING THE YEAR 1931.

								5								
								ONE YEAR AND UNDER FIVE YEARS.								
TOTAL UNDER ONE YEAR.																
Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Number.
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	1
915	931	1,726	1,498	..	..	..	..	240	311	801	700	..	..	..	..	1
550	455	2,793	2,146	..	..	..	..	199	193	1,601	1,300	..	..	1	..	2
942	733	2,446	2,000	..	1	..	..	641	497	1,241	1,269	..	..	..	..	3
1,251	934	2,113	1,991	..	..	..	..	426	395	836	740	..	..	..	..	4
1,450	999	1,626	1,688	..	..	..	..	200	410	1,513	1,012	..	..	..	..	5
13	20	131	72	4	2	3	2	1	1	53	50	..	..	..	..	6
289	316	2,880	3,002	..	..	..	..	49	50	713	805	..	..	..	..	7
1,203	1,236	3,195	2,594	8	6	..	..	732	679	2,126	1,895	6	4	..	..	8
1,821	1,621	2,335	2,287	..	..	..	..	966	972	1,227	1,231	..	..	..	..	9
1,422	1,455	2,304	2,066	9	9	..	..	501	512	898	794	3	2	..	..	10
3,131	2,643	3,428	3,036	6	3	44	38	1,701	1,492	1,729	1,515	5	2	11	17	11
3,371	2,584	1,960	1,685	93	88	63	58	1,610	1,729	1,480	980	44	35	30	24	12
2,934	2,420	2,703	2,210	43	50	67	56	1,323	1,107	1,320	1,209	15	11	18	13	13
2,411	2,015	2,511	2,240	80	89	..	..	1,313	1,147	911	834	45	119	..	..	14
2,570	2,286	1,221	806	348	265	..	..	1,050	970	764	691	100	90	2	1	15
1,999	1,804	574	425	183	169	2	1	1,286	1,236	397	324	105	96	1	..	16
1,867	1,666	735	445	200	155	95	35	1,375	1,199	772	533	104	97	20	17	17
1,566	1,391	177	158	6	1	..	..	756	695	199	178	..	..	..	..	18
2,512	1,979	389	325	44	32	20	10	1,597	1,490	285	244	29	22	13	8	19
1,582	1,367	138	100	4	..	..	..	840	775	73	72	2	1	..	..	20
1,885	1,596	259	230	8	4	2	1	1,159	942	140	130	..	4	..	1	21
1,759	1,436	37	37	..	..	..	..	829	772	27	28	..	..	..	..	22
1,743	1,403	227	152	..	..	..	..	847	801	82	78	..	..	..	..	23
2,396	1,821	1,123	926	32	20	25	20	1,932	1,560	253	354	16	18	22	19	24
2,234	2,188	2,196	1,998	236	99	82	17	1,929	1,724	834	1,180	211	50	110	..	25
2,305	1,814	465	390	1	..	..	..	1,300	1,172	127	94	..	..	..	..	26
3,313	2,778	776	574	48	37	62	42	2,049	1,823	220	232	4	6	12	14	27
2,205	1,956	399	360	..	..	..	..	963	866	102	96	..	..	..	..	28
1,820	1,319	352	231	..	..	11	9	1,020	877	145	138	..	..	5	7	29
53,459	45,166	41,219	35,672	1,353	1,030	476	289	28,834	26,397	20,869	18,706	689	557	245	121	
225,222	249,024	174,610	168,573	8,661	8,554	8,151	7,727	861,657	821,585	550,705	524,700	27,527	26,611	25,645	24,597	
237·36	181·37	236·06	211·61	156·22	120·41	58·40	37·40	33·46	32·13	37·90	35·65	25·03	20·93	9·55	4·92	



## DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS

1	2	6								7			
Number.	DISTRICTS.	FIVE YEARS AND UNDER TEN YEARS.								TEN YEARS AND UNDER			
		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	61	62	63	64	65	66	67	68	69	70	71	72
1	Hissar .. ..	180	275	410	301	..	..	..	..	220	209	307	290
2	Rohtak .. ..	166	122	387	391	..	..	..	1	143	114	240	237
3	Gurgaon .. ..	107	67	196	144	..	..	..	..	117	113	282	214
4	Karnal .. ..	313	394	750	504	..	..	..	..	255	296	687	579
5	Ambala .. ..	200	250	552	504	..	..	..	..	200	200	464	487
6	Simla .. ..	12	4	..	23	1	..	..	..	2	5	7	11
7	Kangra .. ..	41	47	730	773	..	..	..	..	46	55	772	861
8	Hoshiarpur ..	251	188	403	447	2	3	..	..	100	104	299	340
9	Jullundur ..	232	163	227	205	..	1	..	..	109	113	112	135
10	Ludhiana ..	213	210	430	432	..	..	..	..	199	201	307	290
11	Ferozepore ..	411	371	452	432	3	..	19	16	212	161	321	373
12	Lahore .. ..	651	614	512	480	27	28	12	13	575	475	440	450
13	Amritsar ..	398	387	429	421	9	7	11	9	325	307	363	371
14	Gurdaspur ..	461	401	460	430	51	100	1	..	350	340	361	357
15	Sialkot .. ..	300	280	129	144	43	30	..	..	299	288	145	128
16	Gujranwala ..	425	412	130	102	39	19	..	..	428	467	141	108
17	Sheikhupura ..	363	336	100	65	40	45	9	9	180	172	75	65
18	Gujrat .. ..	854	791	46	39	3	..	..	..	884	750	37	26
19	Shahpur .. ..	467	472	49	33	10	7	4	5	286	287	33	21
20	Jhelum .. ..	304	318	23	24	..	..	..	..	187	222	20	15
21	Rawalpindi ..	619	504	90	81	2	..	..	..	350	288	57	53
22	Attock .. ..	402	337	31	29	..	..	..	..	294	283	27	24
23	Mianwali .. ..	297	291	48	29	..	..	..	..	162	132	24	18
24	Montgomery ..	571	387	56	195	13	2	9	7	212	272	134	58
25	Lyallpur .. ..	545	497	325	298	..	25	..	8	310	445	210	101
26	Jhang .. ..	285	428	163	67	..	..	..	1	220	273	90	39
27	Multan .. ..	709	561	148	151	3	8	9	5	418	403	160	142
28	Muzaffargarh ..	638	581	98	78	..	..	1	..	594	503	91	81
29	Dera Ghazi Khan ..	410	308	46	44	..	..	5	4	196	143	25	26
	Total ..	10,825	9,996	7,420	6,866	246	275	80	78	7,873	7,621	6,231	5,900
	Population according to census of 1931.	978,898	843,756	650,409	556,237	31,061	26,412	30,960	26,099	887,055	723,772	627,163	509,235
	Ratio per 1,000 living for the Province.	11·06	11·85	11·41	12·34	7·92	10·41	2·58	2·99	8·88	10·53	9·94	11·59



## No. V.—CONTINUED.

IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1931.

				8									
FIFTEEN YEARS.				FIFTEEN YEARS AND UNDER TWENTY YEARS.									
Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indian Christians.		Other Classes.			
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Number.	
73	74	75	76	77	78	79	80	81	82	83	84	1	
..	..	..	..	200	180	240	300	..	..	..	..	1	
..	..	..	..	134	83	194	254	..	..	..	1	2	
..	..	..	..	195	155	356	314	..	..	..	..	3	
..	..	..	..	309	283	505	513	..	..	..	..	4	
2	..	..	..	250	200	546	511	..	..	..	..	5	
..	..	..	..	4	1	15	39	..	..	..	..	6	
..	..	..	..	39	43	954	956	1	..	..	..	7	
..	..	..	..	116	225	300	299	1	1	..	..	8	
..	..	..	..	114	126	97	190	..	..	..	..	9	
3	1	..	..	187	160	275	254	..	..	..	..	10	
4	1	14	13	308	324	369	342	2	2	18	19	11	
18	23	10	11	496	451	403	440	20	17	12	9	12	
5	4	7	6	350	347	389	383	13	10	11	19	13	
53	78	..	..	410	360	401	440	47	61	..	..	14	
25	19	1	..	326	281	153	117	29	28	..	..	15	
46	25	..	..	505	463	148	109	51	28	..	1	16	
25	30	6	5	208	130	46	85	30	31	7	6	17	
..	..	..	..	871	806	45	38	..	2	..	..	18	
4	3	2	..	279	227	31	42	5	3	..	2	19	
..	..	..	..	184	159	17	22	..	..	..	..	20	
..	1	..	..	211	173	30	26	..	..	..	..	21	
..	..	..	..	354	320	29	26	..	..	..	..	22	
..	..	..	..	156	144	14	13	..	..	..	..	23	
6	10	10	6	174	156	115	125	5	6	3	2	24	
19	30	2	20	315	280	111	165	35	9	6	8	25	
..	..	..	..	182	213	52	33	..	..	..	..	26	
6	5	5	4	363	392	192	181	2	3	9	4	27	
..	..	..	1	532	562	75	56	..	..	1	..	28	
..	..	..	..	159	114	26	25	..	..	..	..	29	
216	230	57	66	7,931	7,358	6,128	6,298	241	201	67	71		
28,333	23,034	28,999	23,503	659,280	551,198	501,205	400,708	22,604	17,645	20,343	17,274		
7.62	9.99	1.97	2.81	12.03	13.35	12.23	15.72	10.66	11.39	3.29	4.11		



## DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS

1	2	9								10			
Number.	DISTRICTS.	TWENTY YEARS AND UNDER THIRTY YEARS.								THIRTY YEARS AND			
		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	85	86	87	88	89	90	91	92	93	94	95	96
1	Hissar .. ..	220	251	405	420	..	..	..	..	206	240	500	503
2	Rohtak .. ..	193	91	571	578	..	..	1	..	146	72	354	720
3	Gurgaon .. ..	354	351	722	710	..	..	..	..	258	259	501	533
4	Karnal .. ..	242	299	505	466	..	..	..	..	288	218	325	471
5	Ambala .. ..	200	200	597	692	2	..	..	..	200	350	630	389
6	Simla .. ..	8	2	44	59	..	..	..	1	10	16	53	20
7	Kangra .. ..	72	40	1,080	989	..	1	..	..	60	60	1,137	1,079
8	Hoshiarpur ..	215	350	477	644	1	1	..	..	391	289	307	498
9	Jullundur ..	236	274	280	393	..	..	..	..	204	208	230	242
10	Ludhiana ..	111	189	350	207	..	..	..	..	121	170	304	189
11	Ferozepore ..	508	517	514	529	6	4	27	22	472	462	533	427
12	Lahore .. ..	588	506	480	379	24	18	19	11	536	525	468	345
13	Amritsar ..	443	440	488	489	7	4	8	6	454	420	473	435
14	Gurdaspur ..	506	550	410	420	5	45	..	..	500	470	468	381
15	Sialkot .. ..	1,088	1,023	693	683	105	100	2	3	900	850	561	495
16	Gujranwala ..	504	493	153	114	47	34	..	..	542	513	159	118
17	Sheikhupura ..	351	337	90	75	45	48	6	7	300	251	68	77
18	Gujrat .. ..	864	814	44	59	1	..	..	..	822	662	38	45
19	Shahpur .. ..	545	665	63	67	12	6	7	4	602	639	55	68
20	Jhelum .. ..	352	393	34	40	1	1	..	..	419	425	16	37
21	Rawalpindi ..	189	174	16	17	2	1	1	..	326	281	64	67
22	Attock .. ..	587	508	36	34	..	..	..	..	548	529	36	28
23	Mianwali .. ..	376	400	39	41	..	..	..	..	347	364	39	43
24	Montgomery ..	353	294	215	281	8	3	14	8	352	462	214	131
25	Lyallpur .. ..	385	372	105	200	19	25	25	12	260	241	200	186
26	Jhang .. ..	461	534	31	27	1	1	..	..	456	534	58	49
27	Multan .. ..	690	867	148	134	4	3	14	13	751	821	147	142
28	Muzaffargarh ..	481	530	103	51	..	..	..	..	489	475	60	73
29	Dera Ghazi Khan ..	406	462	48	123	..	..	2	3	388	500	51	64
	Total ..	11,528	11,926	8,741	8,921	290	305	126	90	11,348	11,306	8,049	7,855
	Population according to Census of 1931.	1,248,498	1,065,419	903,566	733,084	44,350	32,184	36,920	30,492	934,945	737,956	687,715	524,397
	Ratio per 1,000 living for the Province.	9.23	11.19	9.67	12.17	6.54	9.48	3.41	2.95	12.14	15.32	11.70	14.98



No. V—CONTINUED.

IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1931.

				11								12				1
UNDER FORTY YEARS.				FORTY YEARS AND UNDER FIFTY YEARS.								FIFTY YEARS AND UNDER SIXTY YEARS.				
Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indians Christians.		Other Classes.		Muhammadans.		Hindus.		
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Number.
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	1
..	..	..	..	390	440	706	601	..	..	..	..	260	365	1,006	703	1
..	..	..	..	127	66	505	555	..	..	1	..	83	54	617	586	2
..	..	..	..	291	221	580	473	..	..	..	..	145	130	291	264	3
..	..	..	..	229	324	664	609	..	..	..	..	312	406	771	805	4
..	1	..	..	200	200	629	468	..	1	..	..	200	150	447	445	5
..	..	..	1	8	9	45	8	1	3	..	..	20	2	12	6	6
1	..	..	..	59	54	1,251	1,134	..	..	..	..	69	61	1,361	1,227	7
..	1	..	..	333	211	463	437	2	..	..	..	384	259	545	409	8
..	1	..	..	250	142	259	233	..	..	..	..	308	188	323	264	9
1	1	..	..	103	220	295	165	..	..	..	..	101	187	397	268	10
3	2	46	44	514	401	647	423	6	5	38	36	493	414	682	485	11
21	11	14	7	512	462	482	325	13	14	10	11	554	405	414	346	12
9	9	18	16	471	447	516	457	12	12	17	14	550	463	605	522	13
44	67	..	..	460	400	515	375	47	109	..	..	492	513	581	318	14
100	99	2	1	690	619	458	405	98	91	..	2	585	530	224	199	15
76	37	..	..	548	512	154	118	70	36	..	..	559	531	165	121	16
49	40	7	7	311	211	75	72	39	30	5	9	302	159	70	76	17
2	..	..	..	727	642	48	39	2	..	..	..	699	616	67	31	18
10	7	4	2	614	483	50	39	6	5	2	3	650	470	90	48	19
..	2	..	..	488	354	22	23	1	..	..	..	472	323	30	18	20
1	..	..	1	511	434	86	83	2	..	..	..	659	553	105	102	21
..	..	..	..	562	419	30	30	..	..	..	..	610	452	31	34	22
..	..	..	..	330	315	35	32	..	..	..	..	425	319	51	47	23
6	21	11	10	444	342	162	88	17	13	12	16	553	310	83	133	24
2	23	..	33	260	311	96	45	53	31	3	7	297	259	127	105	25
..	..	..	..	487	397	76	63	1	..	..	..	404	298	140	107	26
2	2	16	8	731	543	119	150	3	6	12	8	778	459	130	182	27
1	..	..	..	517	432	68	54	..	..	..	..	447	349	113	91	28
..	..	..	4	447	353	71	51	..	..	1	3	429	245	71	47	29
328	324	118	134	11,614	9,964	9,107	7,555	373	356	101	109	11,840	9,470	9,549	7,989	
28,030	20,961	26,762	21,242	632,068	503,407	488,096	376,456	17,893	13,837	18,709	14,865	411,986	316,705	325,983	241,273	
11·70	15·46	4·41	6·31	18·37	19·79	18·66	20·07	20·85	25·73	5·40	7·33	28·74	29·90	29·29	33·11	



## DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS

1	2	12—concl'd.				13					
Number.	DISTRICTS.	FIFTY YEARS AND UNDER SIXTY YEARS.—concl'd.				SIXTY YEARS AND UPWARDS.					
		Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indian Christians.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
		112	114	115	116	117	118	119	120	121	122
1	Hissar .. ..	..	..	..	..	700	708	1,975	1,207	..	..
2	Rohtak .. ..	..	..	..	..	196	41	1,279	1,169	..	..
3	Gurgaon .. ..	..	..	..	..	416	416	1,037	849	1	..
4	Karnal .. ..	1	..	..	..	636	533	995	1,241	..	..
5	Ambala .. ..	..	..	..	..	290	200	1,161	1,028	..	1
6	Simla .. ..	..	..	2	1	12	15	72	31	1	..
7	Kangra .. ..	1	1	..	..	93	80	1,571	1,429	..	..
8	Hoshiarpur .. ..	2	..	..	..	844	587	2,298	1,895	7	6
9	Jullundur .. ..	..	..	..	..	1,223	887	1,497	1,187	3	..
10	Ludhiana .. ..	2	1	..	..	331	310	812	574	3	2
11	Ferozepore .. ..	6	4	52	46	882	705	1,002	732	8	6
12	Lahore .. ..	24	14	16	9	1,352	1,179	1,127	1,013	35	37
13	Amritsar .. ..	18	14	18	12	887	770	1,355	1,071	22	19
14	Gurdaspur .. ..	41	70	..	..	1,238	979	731	581	37	78
15	Sialkot .. ..	68	66	..	..	448	423	171	146	22	20
16	Gujranwala .. ..	81	54	1	..	570	522	174	119	86	52
17	Sheikhupura .. ..	36	25	7	6	966	697	219	188	102	91
18	Gujrat .. ..	..	..	..	..	934	829	219	149	3	1
19	Shahpur .. ..	8	6	4	6	1,572	1,143	190	116	31	40
20	Jhelum .. ..	..	..	..	..	1,236	956	155	111	..	1
21	Rawalpindi .. ..	3	..	..	..	1,077	941	137	128	2	5
22	Attock .. ..	..	..	..	..	1,155	883	44	37	..	..
23	Mianwali .. ..	..	..	..	..	959	703	97	68	..	1
24	Montgomery .. ..	19	29	13	21	1,310	884	352	296	23	30
25	Lyallpur .. ..	27	17	16	16	996	668	689	799	107	38
26	Jhang .. ..	..	1	..	..	1,378	960	135	159	..	..
27	Multan .. ..	..	3	7	6	1,598	1,185	198	207	8	5
28	Muzaffargarh .. ..	..	..	..	..	590	384	104	76	..	..
29	Dera Ghazi Khan .. ..	..	..	..	1	701	454	103	81	..	..
	Total .. ..	337	305	136	124	24,590	19,042	19,899	16,687	501	433
	Population according to Census of 1931.	11,137	8,296	12,102	9,544	375,003	278,026	278,417	205,484	10,422	7,236
	Ratio per 1,000 living for the Province.	30.26	36.76	11.24	12.99	65.57	68.49	71.47	81.21	48.07	59.84



No. V—CONTINUED.

IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1931.

[illegible]



## ANNUAL FORM No. V—CONCLUDED.

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1931.

1	2	15										
Number.	DISTRICTS.	RATIO OF DEATHS PER 1,000 OF POPULATION.										
		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Total.		Number.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
1	2	133	134	135	136	137	138	139	140	141	142	
1	Hissar .. ..	25·99	33·15	23·12	22·09	..	..	..	..	23·90	25·21	1
2	Rohtak .. ..	26·60	19·84	23·89	25·99	..	..	?	?	24·21	24·76	2
3	Gurgaon .. ..	26·91	26·06	28·52	29·69	1·37	1·36	..	..	27·90	28·43	3
4	Karnal .. ..	30·07	34·49	25·08	30·29	1·24	..	..	..	26·42	31·36	4
5	Ambala .. ..	26·71	30·40	28·63	32·89	0·93	1·05	..	..	27·76	31·81	5
6	Simla .. ..	20·71	51·33	23·51	28·87	8·88	6·65	545·46	?	22·75	30·60	6
7	Kangra .. ..	36·33	44·79	32·90	34·49	9·49	7·69	..	..	31·95	33·84	7
8	Hoshiarpur ..	26·21	26·85	33·11	34·52	13·92	13·09	..	..	27·20	28·33	8
9	Jullundur ..	24·43	23·96	29·23	35·21	1·11	1·24	..	..	23·51	25·66	9
10	Ludhiana ..	25·27	34·27	27·11	28·77	19·13	11·60	..	..	25·78	29·87	10
11	Ferozepore ..	30·79	31·86	29·16	31·17	11·18	10·78	18·49	20·54	29·43	31·04	11
12	Lahore .. ..	22·08	25·43	26·11	31·13	9·94	11·40	268·83	426·83	23·33	27·10	12
13	Amritsar ..	28·01	30·34	26·86	29·80	17·26	18·05	?	?	27·57	30·20	13
14	Gurdaspur ..	30·29	31·97	31·15	33·21	18·99	41·76	?	..	29·97	32·73	14
15	Sialkot .. ..	24·75	27·36	27·05	27·94	25·64	27·12	888·89	291·67	25·54	27·54	15
16	Gujranwala ..	25·59	29·77	23·38	23·17	29·10	24·53	?	?	25·33	27·98	16
17	Sheikhupura ..	25·50	25·54	21·04	20·31	24·91	26·46	27·76	23·94	24·25	24·19	17
18	Gujrat .. ..	21·09	22·15	13·10	12·42	9·74	2·96	..	..	19·89	20·66	18
19	Shahpur .. ..	24·80	25·20	17·43	17·23	25·55	25·83	71·19	69·31	23·73	24·06	19
20	Jhelum .. ..	24·10	22·96	17·22	16·72	20·62	17·61	..	..	23·35	22·29	20
21	Rawalpindi..	25·01	23·96	16·82	21·17	4·06	5·86	65·22	90·91	23·32	23·39	21
22	Attock .. ..	25·40	23·50	12·19	12·51	..	..	1000·00	?	24·20	22·55	22
23	Mianwali ..	30·03	28·79	23·49	19·95	..	5·92	..	..	29·16	27·59	23
24	Montgomery ..	21·72	20·56	17·84	22·09	15·08	21·24	15·30	18·48	20·43	20·94	24
25	Lyallpur ..	19·35	21·05	25·96	34·86	28·48	16·83	8·82	5·38	21·22	24·07	25
26	Jhang .. ..	25·11	25·97	23·23	19·09	11·24	8·81	..	30·30	24·79	24·76	26
27	Multan .. ..	22·13	22·99	18·33	22·08	13·84	18·82	53·08	50·85	21·47	22·90	27
28	Muzaffargarh ..	26·69	28·37	29·43	27·73	7·52	..	?	?	27·04	28·28	28
29	Dera Ghazi Khan ..	23·36	23·11	30·93	29·69	..	..	?	?	24·25	24·03	29
	Total ..	24·83	25·98	26·45	28·88	19·89	21·74	7·27	6·89	25·09	26·73	
	Population according to Census of 1931.	..	..	..	..	..	..	..	..	..	..	
	Ratio per 1,000 living for the Province.	..	..	..	..	..	..	..	..	..	..	

?Figures incorrect due to misclassification.  
 The population shown in this table includes Europeans and Anglo Indians (25,639).



DEATHS REGISTERED FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE DISTRICTS (RURAL CIRCLES) OF THE PUNJAB  
DURING THE YEAR 1931.

1	2	3	4				5	6	7	8	9	10	11					12	13	14													
Number.	A.—RURAL CIRCLES.	Population according to Census of 1931.	BIRTHS.			Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	INJURIES.					All other causes.	Total deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.														
			Males.	Females.	Total.							Birth rate per 1,000 of population.	Suicide.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.			Total.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.					
																												For the year.	Mean of previous five years.	Cholera.	Small-pox.	Plague.	Fever.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
1	AMBALA DIVISION.																																
1	Hissar	790,215	17,181	14,888	32,069	40.58	..	264	..	13,209	175	755	..	3	33	1	..	37	4,598	19,038	..	0.33	..	16.72	0.22	0.96	0.05	5.82	24.09	27.14	27.14		
2	Rohtak	714,090	17,653	16,015	33,668	47.15	..	108	..	13,495	110	895	7	46	133	19	1	206	2,852	17,671	..	0.15	..	18.90	0.15	1.25	0.29	3.99	24.75	33.87	33.87		
3	Gurgaon	673,672	17,912	16,194	34,106	50.63	..	5	..	12,068	160	1,222	18	32	259	7	..	316	5,501	19,272	..	0.01	..	17.91	0.24	1.81	0.47	8.17	28.61	36.02	36.02		
4	Karnal	756,302	17,227	15,546	32,773	43.33	..	30	..	16,905	263	732	3	5	111	24	5	148	3,624	21,702	..	0.04	..	22.35	0.35	0.97	0.20	4.79	28.69	34.37	34.37		
5	Ambala	613,952	13,866	12,669	26,535	43.22	4	42	..	9,933	260	4,679	..	..	..	4	..	4	4,009	18,931	0.01	0.07	..	16.18	0.42	7.62	0.01	6.53	30.83	30.83	30.83		
6	Simla	14,160	192	149	341	24.08	..	..	..	99	65	73	..	..	..	..	..	..	119	356	..	..	6.99	4.59	5.16	..	8.40	25.14	25.35	25.35			
7	JULLUNDUR DIVISION.																																
7	Kangra	786,679	15,379	14,142	29,521	37.53	3	4	..	11,734	3,717	5,570	3	5	700	32	5	745	4,220	25,993	0.004	0.01	..	14.92	4.72	7.08	0.95	5.36	33.04	29.49	29.49		
8	Hoshiarpur	949,237	22,307	19,979	42,286	44.55	16	217	590	19,764	518	2,101	3	4	65	11	..	83	3,612	26,901	0.02	0.23	0.62	20.82	0.55	2.21	0.09	3.81	28.34	28.49	28.49		
9	Jullundur	798,365	18,725	17,324	36,049	45.15	14	34	3	14,748	87	992	7	1	192	4	1	205	3,695	19,778	0.02	0.04	0.004	18.47	0.11	1.24	0.26	4.63	24.77	24.37	24.37		
10	Ludhiana	558,417	13,371	12,391	25,762	46.13	10	43	..	9,701	43	882	..	..	..	..	..	..	5,224	15,903	0.02	0.08	..	17.37	0.08	1.58	..	9.36	28.48	25.69	25.69		
11	Ferozepore	1,002,063	22,867	20,288	43,155	43.07	13	268	..	21,611	282	1,936	..	..	126	16	..	142	7,072	31,324	0.01	0.27	..	21.57	0.28	1.93	0.14	7.06	31.26	24.14	24.14		
12	LAHORE DIVISION.																																
12	Lahore	822,967	18,934	16,189	35,123	42.68	30	299	2	15,939	529	1,389	8	11	133	6	5	163	4,965	23,366	0.04	0.36	0.002	19.43	0.64	1.69	0.20	6.03	28.39	25.52	25.52		
13	Amritsar	816,079	21,322	19,362	40,684	49.85	16	133	..	17,729	194	1,864	4	1	165	21	6	197	4,579	24,712	0.02	0.16	..	21.72	0.24	2.28	0.24	5.61	30.28	30.33	30.33		
14	Gurdaspur	870,571	22,459	20,506	42,965	49.34	11	55	138	17,090	1,439	2,621	5	1	187	11	10	214	6,247	27,815	0.01	0.06	0.16	19.63	1.65	3.01	0.25	7.18	31.95	29.34	29.34		
15	Sialkot	811,260	20,453	18,932	39,385	48.55	13	425	306	14,724	347	2,927	3	4	159	14	8	188	3,708	22,638	0.02	0.52	0.38	18.15	0.43	3.61	0.23	4.57	27.90	27.26	27.26		
16	Gujranwala	611,599	14,576	13,320	27,896	45.61	7	50	..	14,585	16	437	2	..	103	43	3	151	1,820	17,066	0.01	0.08	..	23.85	0.03	0.71	0.25	2.98	27.90	27.64	27.64		
17	Sheikhpura	651,770	15,819	14,132	29,951	45.95	5	94	..	13,007	30	357	8	2	121	61	1	193	2,671	16,357	0.01	0.14	..	19.96	0.05	0.55	0.30	4.10	25.10	23.63	23.63		
18	RAWALPINDI DIVISION.																																
18	Gujrat	859,286	18,205	16,687	34,892	40.61	9	317	..	13,158	25	1,170	3	..	151	19	5	178	2,199	17,056	0.01	0.37	..	15.31	0.03	1.36	0.21	2.56	19.85	22.07	22.07		
19	Shahpur	723,652	15,672	14,146	29,818	41.20	5	45	..	12,668	111	2,034	3	..	186	28	1	218	2,626	17,707	0.01	0.06	..	17.51	0.15	2.81	0.30	3.63	24.47	25.19	25.19		
20	Jhelum	497,934	10,552	9,453	20,005	40.18	..	64	..	8,544	77	1,008	7	..	191	34	1	233	1,834	11,760	..	0.13	..	17.16	0.15	2.02	0.47	3.68	23.62	23.99	23.99		
21	Rawalpindi	512,403	11,680	10,377	22,057	43.05	..	8	..	8,567	1,669	1,404	..	1	186	38	..	225	958	12,831	..	0.02	..	16.72	3.25	2.74	0.44	1.87	25.04	23.70	23.70		
22	Attock	550,822	11,161	9,816	20,977	38.08	..	56	..	10,342	13	999	4	2	57	11	2	76	1,718	13,204	..	0.10	..	18.78	0.02	1.81	0.14	3.12	23.97	23.15	23.15		
23	Mianwali	373,224	9,203	8,298	17,501	46.89	..	8	..	9,339	30	276	2	3	111	6	2	124	1,128	10,905	..	0.02	..	25.02	0.09	0.74	0.33	3.02	29.22	27.93	27.93		
24	MULTAN DIVISION.																																
24	Montgomery	943,896	17,744	15,628	33,372	35.36	19	87	1	16,318	47	764	3	1	222	53	10	289	2,502	20,027	0.02	0.09	0.001	17.29	0.05	0.81	0.31	2.65	21.22	19.63	19.63		
25	Lyallpur	1,059,646	26,774	24,791	51,565	48.66	7	94	..	17,898	69	1,015	5	2	144	7	6	164	5,153	24,400	0.01	0.09	..	16.89	0.07	0.96	0.15	4.86	23.03	22.51	22.51		
26	Jhang	584,584	13,447	11,753	25,200	43.11	..	54	..	9,615	75	1,688	..	..	159	31	3	193	3,113	14,738	..	0.09	..	16.45	0.13	2.89	0.33	5.33	25.21	22.84	22.84		
27	Multan	1,003,252	21,285	18,284	39,569	39.44	6	160	..	18,797	16	658	6	..	271	58	3	338	2,229	22,204	0.01	0.16	..	18.74	0.02	0.66	0.34	2.22	22.13	20.04	20.04		
28	Muzaffargarh	556,297	12,259	10,268	22,527	40.49	..	44	..	14,054	71	297	1	..	98	80	3	182	761	15,409	..	0.08	..	25.26	0.13	0.53	0.33	1.37	27.70	25.43	25.43		
29	D. G. Khan	431,544	9,716	7,851	17,567	40.71	..	59	..	9,662	34	237	..	4	102	43	1	150	673	10,815	..	0.14	..	22.39	0.08	0.55	0.35	1.56	25.06	23.32	23.32		
Total			467,941	419,378	887,3																												



ANNUAL FORM No. VI-B (TOWNS).

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE TOWNS OF THE PUNJAB DURING THE YEAR 1931.

1	2	3	4			5	6	7	8	9	10	11			12	13	14														
Number.	B.—Towns.	Population according to Census of 1931.	Births.			Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhea.	Respiratory diseases.	Injuries.			All other causes.	Total deaths from all causes.	Ratio of Deaths per 1,000 of Population.														
			Males.	Females.	Total.							Suicide.	Wounds and accidents.	Snake-bite and killed by wild beasts.			Rabies.	Total.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.				
																											For the year.	Mean ratio of previous five years.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
HISSAR DISTRICT.																															
1	Hissar	25,179	433	409	842	33.44	2		331	34	51								288	706	0.08				13.15	1.35	2.03		11.44	28.04	36.54
2	Hansi	18,356	371	390	761	41.46			325	20	51								231	627					17.71	1.09	2.78		12.58	34.16	39.28
3	Bhiwani	35,866	849	770	1,619	45.14			441	60	82								599	1,182					12.30	1.67	2.29		16.70	32.96	41.77
4	Sirsa	18,909	239	228	467	24.70		1	214	22	23								132	392	0.05	0.05			11.32	1.16	1.22		6.97	20.73	25.60
5	Fatehabad	2,497	68	43	111	44.45			46	3	1								27	77					18.42	1.21	0.40		10.81	30.84	26.83
6	Budhlada	8,369	32	29	61	7.29			13										5	18					1.55				0.59	2.15	*
ROHTAK DISTRICT.																															
7	Rohtak	35,235	590	556	1,146	32.52		13	324	20	142				12				208	719		0.37			9.20	0.57	4.03	0.34	5.90	20.41	21.85
8	Jhajjar	12,232	269	247	516	42.18		4	59	22	73				3				122	283		0.33			4.82	1.80	5.96	0.25	9.97	23.14	37.03
9	Beri	7,877	246	209	455	57.76		1	129	25	18								88	261		0.13			16.38	3.17	2.29		11.17	33.13	38.09
10	Gohana	5,045	106	92	198	39.25		2	51	1	13				4				11	82		0.40			10.11	0.20	2.58	0.79	2.18	16.25	41.63
11	Bahadurgarh	6,963	179	183	362	51.98		2	114	10	38								34	198		0.29			16.37	1.44	5.46		4.88	28.44	53.71
12	Sonepat	15,050	307	315	622	41.33		2	203	18	43				2				73	341		0.13			13.49	1.20	2.86	0.13	4.85	22.66	31.36
13	Mehm	9,079	178	148	326	35.91			99		28								28	155					10.90		3.08		3.08	17.07	25.66
GURGAON DISTRICT.																															
14	Rewari	26,269	659	588	1,247	47.47			203	45	126				2	1		3	255	632					7.73	1.71	4.80	0.11	9.70	24.06	28.06
15	Palwal	10,807	279	274	553	51.17			115	11	40				3			5	150	321					10.64	1.02	3.70	0.46	13.88	29.70	39.05
16	Firozpur	5,390	131	129	260	48.24			87	20	18				1			1	51	177					16.12	3.71	3.34	0.19	9.46	32.84	42.86
17	Hodal	7,258	206	145	351	48.36			82	1	17								67	168					11.30	0.14	2.34	0.14	9.23	23.15	32.38
18	Ballabgarh	4,162	108	87	195	46.85			79	7	14								32	132					18.98	1.68	3.36		7.69	31.71	36.16
19	Faridabad	5,134	118	97	215	41.88			61	5	9								19	94					11.88	0.97	1.75		3.70	18.31	22.40
20	Hidayatpur Chhaoni.	7,208	50	42	92	12.76			17	3	10				1			1	5	36					2.36	0.42	1.39	0.14	0.69	4.99	12.49
KARNAL DISTRICT.																															
21	Karnal	26,610	588	530	1,118	42.01		4	405	48	90				1			1	188	736		0.15			15.21	1.80	3.38	0.04	7.07	27.66	33.26
22	Kaithal	19,418	465	385	850	43.77		1	295	23	52								149	520		0.05			15.19	1.18	2.68		7.67	26.78	30.02
23	Panipat	32,915	783	727	1,510	45.88		6	457	79	130				2	1		3	311	986		0.18			13.88	2.40	3.95	0.09	9.45	29.96	31.99
24	Shahabad	12,293	293	235	528	42.95			158	27	44				1			1	115	345					12.85	2.20	3.57	0.08	9.35	28.06	29.45
25	Thanesar	5,032	60	67	127	25.24		3	81	8	16								16	125	0.20	0.60			16.10	1.59	3.18		3.18	24.85	24.24



AMBALA DISTRICT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															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## DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE TOWNS OF THE PUNJAB DURING THE YEAR 1931—CONTINUED.

1	2	3	4				5	6	7	8	9	10	11				12	13	14											
Number.	B.—Towns.	Population according to Census of 1931.	BIRTHS.			Birth rate per 1,000 of population.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	INJURIES.				All other causes.	Total deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.											
			Males.	Females.	Total.								Suicide.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.			Total.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diar- rhoea.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean ratio of previous five years.	
																														4
LUDHIANA DISTRICT.																														
66	Ludhiana	68,586	1,560	1,385	2,945	42.94	3			399	86	345									0.04	0.06		5.82	1.25		11.68	23.88	23.26	
67	Jagraon	27,108	498	456	954	35.19				316	11	20												11.66	0.41		9.63	22.43	20.44	
68	Raekot	11,810	252	237	489	41.41				113	5	12												9.57	0.42		12.19	23.20	20.32	
69	Khanna	6,555	91	101	192	29.29				80	2	19												12.20	0.31		3.81	19.53	23.65	
FEROZEPUR DISTRICT.																														
70	Ferozepore	32,653	715	587	1,302	39.87				141	93	318		6	1		7							4.32	2.85		6.92	24.13	20.95	
71	Zira	5,318	134	133	267	50.21				82	11	23												15.42	2.07		15.04	36.86	27.64	
72	Dharmkot	6,779	170	138	308	45.43				150	6	27		1										22.13	0.89		5.31	32.60	27.89	
73	Muktsar	14,839	303	269	572	38.55				153	19	82		4			4							10.31	1.28		6.54	25.34	21.03	
74	Fazilka	18,463	339	294	633	34.28				221	17	84		5			5							11.97	0.92		8.94	26.70	25.29	
75	Moga	17,581	321	336	657	37.37				279	3	36		1			1							15.87	0.17		7.56	25.88	18.09	
76	Abohar	14,035	176	147	323	23.01				57	3	12												4.06	0.21		1.07	6.20	9.41	
77	Gidarbaha	3,636	78	75	153	42.08				35	5	23												9.63	1.38		14.58	32.18	15.95	
78	Gurharsahai	1,470	30	26	56	38.10				14		3												9.52			3.40	18.37	21.77	
79	Jalalabad	7,703	129	144	273	35.44				64	10	29		1	1		2							8.31	1.30		7.53	21.68	*	
80	Ferozepore Can- tonment.	20,179	461	407	868	43.02				544	8	46		1			1							26.96	0.40		1.29	30.97	*	
LAHORE DISTRICT.																														
81	Lahore	393,985	5,795	5,342	11,137	28.27	38			2,867	641	2,052		2	92	2	1	98	2,281	8,109	0.10	0.34		7.28	1.63		5.79	20.58	20.98	
82	Chunian	8,269	159	147	306	37.01				171	6	15			3			3	64	265		0.73		20.68	0.73		7.74	32.05	36.88	
83	Khudian	4,508	127	97	224	49.69				63		13							30	106				13.98			6.65	23.51	33.50	
84	Kasur	46,815	834	773	1,607	34.33				493	57	123			5		6	293	974		0.04		10.53	1.22		0.13	20.81	22.00		
85	Khem Karn	6,898	197	181	378	54.80	1			144	3	18			3		3	57	228	0.14	0.29		20.88	0.43		8.26	33.05	30.44		
86	Patti	12,882	290	295	585	45.41				186	11	31			2	1		3	105	336				14.44	0.85		8.15	26.55	27.01	
87	Baghbanpura- Bhogiwal.	13,805	266	231	497	36.00				137	3	55							66	261				9.92	0.22		4.78	18.91	24.12	
88	Ichhra	5,048	107	79	186	36.85				49		23							19	94		0.59		9.71			3.76	18.62	11.49	
89	Pattoki Mandi	8,016	137	123	260	32.44				71	1	8			1			1	17	98				8.86	0.12		2.12	12.23	14.85	
90	Kot Rai Buta	4,066	31	29	60	14.76				17	1	1			2		3	8		30				4.18	0.25		1.97	7.38	*	
91	Mal & Azma bad.																	1	5	42				8.59	0.83		1.39	11.63	*	
92	Niaz Beg	3,610	36	39	75	20.78				31	3	2							14	126		0.21		21.62	0.84		2.94	26.44	*	
93	Padhana	4,765	99	98	197	41.34				103	4	3			1		1		49	147				12.56	0.98		7.99	23.98	*	
94	Sur Singh	6,129	133	125	258	42.09				77	6	14								147							0.16	7.99	23.98	*
	Lahore Canton- ment.	19,615	209	162	371	18.91				142	5	35			1		1		5	188					7.24	0.25		0.25	9.58	*



AMRITSAR DISTRICT.		262,995	4,602	4,128	8,730	33·19	23	10	..	2,731	143	2,216	11	1	84	2	1	99	1,265	6,487	0·09	0·04	..	10·38	0·54	8·43	0·38	4·81	24·67	25·23	
95	Amritsar	..	..	..	8,730	33·19	..	..	..	125	3	30	..	..	..	..	..	..	..	35	193	..	..	..	18·63	0·45	4·47	..	5·22	28·77	28·02
96	Majitha	6,709	154	162	316	47·10	..	..	..	136	8	30	..	..	..	..	..	..	..	33	209	0·11	0·11	..	15·30	0·90	3·38	..	3·71	23·51	27·79
97	Jandiala	8,888	204	193	397	44·67	1	1	..	86	8	34	..	..	2	..	..	..	..	30	161	..	1·10	..	8·51	0·79	3·38	0·20	2·97	15·94	13·07
98	Tarn Taran	10,103	198	168	366	36·23	..	1	..	122	8	9	..	..	..	..	..	..	..	4	140	..	0·41	..	24·88	0·61	1·84	..	0·82	28·55	*
99	Ram Dass	4,904	124	106	230	46·90	..	2	..	114	3	22	..	..	..	..	..	..	..	51	192	..	..	..	20·46	0·90	3·95	..	9·15	34·46	*
100	Sultanwind	5,572	167	133	300	53·84	..	..	..	114	5	..	..	..	..	..	..	..	..	51	192	..	..	..	20·46	0·90	3·95	..	9·15	34·46	*
101	Amritsar Cantonment.	959	10	14	24	25·03	..	..	..	5	..	3	..	..	..	..	..	..	..	5	13	..	..	..	5·21	..	3·13	..	5·21	13·56	*
GURDASPUR DISTRICT.																															
102	Gurdaspur	12,094	188	190	378	31·26	2	1	1	117	9	37	..	..	2	..	..	2	57	226	0·17	0·08	0·08	9·67	0·74	3·06	0·17	4·71	18·69	18·36	
103	Dina Nagar	5,114	120	95	215	42·04	..	..	..	51	4	18	..	..	2	..	..	2	31	106	..	..	..	9·97	0·78	3·52	0·39	6·06	20·73	36·73	
104	Pathankot	9,763	195	197	392	40·15	..	..	..	148	12	36	..	..	3	..	..	3	107	306	..	..	..	15·16	1·23	3·69	0·31	10·95	31·34	34·42	
105	Dalhousie	1,030	18	13	31	30·10	..	..	..	6	1	14	1	..	..	..	..	1	4	26	..	..	..	5·83	0·97	13·59	0·97	3·88	25·24	28·16	
106	Batala	33,204	845	753	1,598	48·13	..	1	..	618	16	94	1	..	6	..	1	8	144	882	..	0·03	0·03	18·61	0·48	2·83	0·24	4·34	26·56	28·82	
107	Dera Nanak	5,176	129	105	234	45·21	..	..	..	102	4	11	..	..	1	..	..	1	23	141	..	..	..	19·71	0·77	2·13	0·19	4·44	27·24	23·77	
108	Dhariwal	4,186	93	71	164	39·18	..	..	1	89	15	45	..	..	2	..	..	2	33	185	..	..	0·23	21·26	3·58	10·75	0·48	7·88	44·19	*	
109	Sujanpur	4,605	127	104	231	50·16	..	..	..	59	8	35	..	..	..	..	..	1	57	160	..	..	..	12·81	1·74	7·60	0·22	12·38	37·74	*	
110	Narot	3,601	41	30	71	19·72	..	..	..	30	1	9	..	..	..	..	..	..	13	53	..	..	..	8·33	0·28	2·50	..	3·61	14·72	*	
111	Fatehgarh	6,457	129	121	250	38·72	3	..	..	61	2	13	..	..	2	..	..	2	27	108	0·46	..	..	9·45	0·31	2·01	0·31	4·18	16·73	*	
112	Qadian	7,018	109	78	187	26·65	..	..	..	57	12	40	1	..	2	..	..	3	10	122	..	..	..	8·12	1·71	5·70	0·43	1·42	17·38	*	
113	Sri Gobindpur	3,737	82	71	153	40·94	..	..	..	39	1	15	..	..	..	..	..	..	27	82	..	..	..	10·44	0·27	4·01	..	7·23	21·94	*	
114	Dalhousie Cantonment.	695	12	20	32	46·04	..	..	..	5	6	6	..	..	1	..	..	1	4	22	..	..	..	7·19	8·63	8·63	1·44	5·76	31·65	*	
115	Bukloh Cantonment.	1,002	79	72	151	150·76	..	..	..	60	..	9	..	..	..	..	..	..	5	74	..	..	..	59·88	..	8·98	..	4·99	73·85	*	
SIALKOT DISTRICT.																															
116	Sialkot	82,923	1,836	1,755	3,591	43·31	54	28	68	753	107	521	1	..	14	..	..	15	279	1,825	0·65	0·34	0·82	9·08	1·29	6·28	0·18	3·36	22·01	23·38	
117	Daska	8,636	137	112	249	28·83	..	..	..	65	8	13	..	..	3	..	..	3	18	107	..	..	..	7·53	0·93	1·51	0·35	2·08	12·39	10·07	
118	Jamke	4,022	91	73	164	40·78	..	2	..	44	8	22	2	..	1	..	..	3	7	86	..	0·50	..	10·84	1·99	5·47	0·75	1·74	21·38	23·37	
119	Pasrur	7,905	200	214	414	52·37	1	1	..	76	10	50	..	..	5	..	..	5	37	180	0·13	0·13	..	9·61	1·27	6·32	0·63	4·68	22·68	24·29	
120	Zaffarwal	4,102	83	65	148	36·08	..	6	..	30	4	20	..	..	1	..	..	1	17	78	..	1·46	..	7·31	0·98	4·88	0·25	4·14	19·02	24·87	
121	Narowal	7,095	183	189	572	52·45	11	5	..	98	16	29	..	..	1	..	..	1	50	210	1·55	0·70	..	13·81	2·26	4·09	0·14	7·05	29·60	25·65	
122	Sambrial	3,827	71	58	129	33·71	..	1	..	41	2	2	..	..	1	..	..	1	7	54	..	0·26	..	10·71	0·52	0·52	0·26	1·83	14·11	13·85	
123	Sahowala	3,244	68	63	131	40·38	..	..	..	20	2	17	..	..	2	..	..	2	6	47	..	..	..	6·17	0·62	5·24	0·62	1·85	14·49	16·65	
124	Begowala	4,040	85	87	172	42·57	..	7	..	43	..	3	..	..	..	..	..	..	..	53	..	1·73	..	10·64	..	0·74	..	..	13·12	17·57</	

\* Not available.



## ANNUAL FORM No. VI-B (TOWNS)—CONTINUED.

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE TOWNS OF THE PUNJAB DURING THE YEAR 1931—CONTINUED.

1	2	3	4		5	6	7	8	9	10	11				12	13	14														
Number.	B.—TOWNS.	Population according to Census of 1931.	BIRTHS.		Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	INJURIES.					All other causes.	Total deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.													
			Males.	Females.							Suicide.	Wounds and acci- dents.	Snake-bite and killed by wild beasts.	Rabies.	Total.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diar- rhoea.	Respiratory disease.	Injuries.	All other causes.	From all causes.					
																										For the year.	Mean ratio of previous five years.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
SHEIKHUPURA DISTRICT.																															
141	Khangah Dog- ran.	1,884	21	19	40	21.23	..	19	..	1	..	..	..	..	..	..	..	..	2	22	..	..	..	..	10.08	..	0.53	..	1.06	11.68	15.92
142	Sangla	6,478	104	71	175	27.01	..	31	3	..	..	..	1	..	..	..	..	1	3	38	..	..	..	..	4.79	0.46	..	0.15	0.46	5.87	5.71
143	Sharakpur	5,056	108	135	243	48.06	..	69	9	8	..	..	2	..	..	..	..	2	45	133	..	..	..	..	13.65	1.78	1.58	0.40	8.90	26.31	25.71
144	Shahkot	1,490	38	40	78	52.35	..	22	2	1	..	..	2	..	..	..	..	..	1	28	..	..	..	..	14.77	1.34	0.67	1.34	0.67	18.79	27.52
145	Chuharkana	3,399	50	51	101	29.71	..	15	..	6	..	..	..	..	..	..	..	..	10	31	..	..	..	..	4.41	..	1.77	..	2.94	9.12	15.00
146	Mandi.	9,155	151	136	287	31.35	..	68	5	22	..	..	1	..	..	..	..	1	20	118	..	0.22	..	..	7.43	0.55	2.40	0.11	2.18	12.89	10.92
147	Nankana Sahib	5,249	93	69	162	30.86	..	44	3	12	..	..	1	..	..	..	..	1	10	72	..	0.38	..	..	8.38	0.57	2.29	0.19	1.90	13.72	14.86
148	Shahdara	12,166	121	108	229	18.91	8	47	..	13	..	..	..	..	..	..	..	..	11	81	0.66	0.08	0.08	3.86	..	1.07	..	0.90	6.66	*	
GUJRAT DISTRICT.																															
149	Gujrat	26,511	605	607	1,212	45.72	..	435	21	100	..	..	15	..	15	..	..	15	102	674	..	0.04	..	..	16.41	0.79	3.88	0.57	3.85	26.42	27.12
150	Jalalpur	12,507	291	276	567	45.33	26	165	9	62	..	..	5	..	6	..	..	6	64	332	..	2.08	..	..	13.19	0.72	4.96	0.48	5.12	26.55	28.22
151	Kunjah	7,152	208	182	390	54.53	..	117	..	20	1	..	1	1	3	..	..	3	36	177	..	0.14	..	..	16.36	..	2.80	0.42	5.03	24.75	31.88
152	Dinga	7,068	141	107	248	35.09	..	47	..	17	..	..	4	..	5	..	..	5	26	96	..	0.14	..	..	6.65	..	2.41	0.71	3.68	13.58	15.14
153	Kharian	3,534	56	55	111	31.44	..	53	..	5	..	..	..	..	..	..	..	..	10	69	..	0.28	..	..	15.04	0.50	1.42	..	2.84	19.58	*
154	Malakwal	4,034	66	44	110	27.27	..	51	2	16	..	..	1	..	1	..	..	1	7	77	..	..	..	12.64	0.50	3.97	0.25	1.74	19.09	*	
155	Lalamusa	1,175	128	119	247	21.02	..	49	8	23	..	..	5	..	5	..	..	5	25	114	..	3.40	..	..	41.70	6.81	19.57	4.26	21.28	97.02	*
156	Mona	1,073	53	44	97	90.40	..	46	..	22	..	..	..	..	..	..	..	..	13	81	..	..	..	..	42.87	..	12.12	75.49	*		
SHAHPUR DISTRICT.																															
157	Shahpur	5,280	104	126	230	43.56	..	86	1	30	..	..	1	..	1	..	..	1	23	141	..	..	..	..	16.29	0.19	5.68	0.19	4.36	26.70	24.62
158	Sahiwal	7,762	168	158	326	42.00	..	75	4	130	..	..	..	..	2	..	..	2	54	266	..	0.13	..	..	9.66	0.52	16.75	0.26	6.96	34.27	30.53
159	Bhera	19,741	513	500	1,013	51.31	1	200	29	95	..	..	1	..	3	..	..	3	128	456	0.05	..	..	..	10.13	1.47	4.81	0.15	6.48	23.10	32.12
160	Miani	6,472	150	134	284	43.06	..	99	5	24	..	..	2	..	5	..	..	5	32	163	..	0.14	..	..	15.30	0.77	3.71	0.46	4.94	25.19	30.75
161	Khushab	14,194	278	258	536	37.76	..	147	15	84	..	..	4	..	8	..	..	8	55	308	..	..	..	..	10.36	1.06	5.92	0.35	3.87	21.70	20.08
162	Sargodha	26,761	430	335	765	28.59	..	69	51	111	..	..	6	..	1	..	..	1	77	316	..	..	..	..	2.58	1.91	4.15	0.30	2.88	11.81	9.38
163	Shahpur Civil	3,265	42	59	101	30.93	..	15	3	17	..	..	1	..	1	..	..	1	10	46	..	..	..	..	4.59	0.10	5.20	0.31	3.06	14.09	*
164	Station.	4,153	62	62	124	29.81	1	18	2	15	..	..	1	..	2	..	..	2	8	46	..	0.24	..	..	4.33	0.48	3.61	0.24	1.93	11.08	*
165	Bhalwal	4,619	90	83	173	37.45	..	66	2	17	..	..	1	..	1	..	..	1	21	107	..	..	..	..	14.29	0.43	3.68	0.22	4.55	23.17	*
166	Nurpur	2,583	56	47	103	39.88	..	15	3	8	..	..	3	..	3	..	..	3	15	44	..	..	..	..	5.81	1.16	3.10	1.16	5.81	17.03	*
166	Sillanwali	2,583	56	47	103	39.88	..	15	3	8	..	..	3	..	3	..	..	3	15	44	..	..	..	..	5.07	0.34	0.34	..	1.01	6.43	*



168	Jhelum District.	17,266	337	319	656	37.99	..	..	122	10	52	..	..	..	..	..	..	..	252	0.01	0.01	..	..	7.07	0.58	3.01	0.35	3.59	14.60	19.46
169	Pind Dadan Khan.	9,832	209	188	397	40.38	..	..	102	10	20	..	..	..	..	..	..	..	163	..	..	..	..	10.37	1.02	2.03	0.20	2.95	16.58	29.09
170	Chakwal	9,542	177	113	290	30.39	..	3	78	8	40	..	..	2	..	..	..	..	181	0.31	..	..	..	8.17	0.84	4.19	0.21	5.24	19.90	19.18
171	Jhelum Cantonment.	2,433	7	12	19	7.81	..	..	1	..	1	..	..	..	..	..	..	..	3	..	..	..	..	0.41	..	0.41	..	1.23	..	*
172	RAWALPINDI DISTRICT.	71,992	1,513	1,385	2,898	40.25	1	1	712	93	401	3	2	32	..	..	..	..	1,700	0.01	0.01	..	..	9.89	1.29	5.57	0.51	6.32	23.61	22.59
173	Rawalpindi	1,530	20	29	49	32.03	..	..	17	1	5	..	..	1	..	..	..	..	25	..	..	..	..	11.11	0.65	3.27	0.65	0.65	16.34	22.22
174	Murree Cantonment.	425	7	3	10	23.53	..	..	3	..	..	..	..	..	..	..	..	..	3	..	..	..	..	7.06	..	..	..	7.06	..	*
175	Rawalpindi Cantonment.	33,610	303	249	552	16.42	..	..	104	9	63	..	..	1	..	..	..	..	255	..	..	..	..	3.09	0.27	1.87	0.03	2.32	7.59	*
176	ATTOCK DISTRICT.	10,506	291	237	528	50.26	..	..	162	5	28	..	..	..	..	..	..	..	208	..	..	..	..	15.42	0.48	2.67	..	1.24	19.80	25.32
177	Pindigheb	9,155	246	188	434	47.41	..	..	80	1	47	..	..	..	..	..	..	..	172	..	..	..	..	8.73	0.11	5.13	..	4.81	18.79	22.94
178	Hazro	7,997	86	81	167	20.88	..	..	24	1	9	..	..	4	..	..	..	..	65	..	..	..	..	3.00	0.13	1.13	0.50	3.38	8.13	7.13
179	Campbellpore	1,695	24	14	38	22.42	..	..	11	..	10	..	..	1	..	..	..	..	27	..	..	..	..	6.49	..	5.90	0.59	2.95	15.93	*
180	MIANWALI DISTRICT.	15,412	281	226	507	32.90	..	1	105	7	24	..	..	2	..	..	..	..	162	0.06	..	..	..	6.81	0.45	1.56	0.13	1.49	10.51	9.34
181	Mianwali	6,857	187	139	326	47.54	..	7	161	5	61	..	..	..	..	..	..	..	262	1.02	..	..	..	23.58	0.73	8.90	..	4.08	38.21	32.23
182	Bhakkar	7,515	152	163	315	41.92	..	..	88	25	37	..	..	..	..	..	..	..	172	..	..	..	..	11.71	3.33	4.92	0.22	2.93	22.89	17.70
183	Isa Khel	8,353	222	187	409	48.96	..	..	126	1	31	..	..	2	..	..	..	..	191	..	..	..	..	15.08	0.12	3.71	0.22	3.71	22.87	25.50
184	Kalabagh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
185	MONTGOMERY DISTRICT.	26,164	238	200	438	16.74	..	4	104	6	40	..	..	5	..	..	..	..	201	0.15	..	..	..	3.97	0.22	1.53	0.19	1.61	7.68	6.92
186	Montgomery	11,311	182	167	349	30.85	..	1	232	..	21	..	..	..	..	..	..	..	276	0.08	..	..	..	20.51	..	1.86	..	1.95	24.40	30.24
187	Pakpattan	10,712	130	116	246	22.96	..	11	37	1	20	..	..	3	..	..	..	..	91	1.03	..	..	..	3.45	0.09	1.87	0.28	1.77	8.50	9.15
188	Okara	4,387	69	78	147	33.51	..	2	22	..	2	..	..	1	..	..	..	..	31	0.46	..	..	..	5.02	..	0.46	0.23	0.91	7.07	*
189	Chichawatni	3,119	64	50	114	36.55	..	..	15	..	8	..	..	1	..	..	..	..	29	..	..	..	..	4.81	..	2.56	0.64	1.28	9.30	*
190	LYALLPUR DISTRICT.	42,922	633	560	1,193	27.79	1	1	375	8	137	..	..	8	..	..	..	..	728	0.02	0.02	..	..	8.74	0.19	3.19	0.19	4.61	16.96	12.16
191	Lyallpur	9,779	195	164	359	36.71	..	..	53	4	29	..	..	..	..	..	..	..	127	..	..	..	..	5.42	0.41	2.97	..	4.19	12.99	10.94
192	Gojra	2,278	59	38	97	42.58	..	1	50	1	3	..	..	..	..	..	..	..	63	0.04	..	..	..	21.95	0.44	1.32	..	3.51	27.66	23.27
193	Samundri	6,105	97	72	169	27.68	..	..	51	1	8	..	..	1	..	..	..	..	68	..	..	..	..	8.35	0.16	1.31	0.16	1.15	11.14	*
194	Tandianwala	4,094	93	76	169	41.28	..	..	55	..	4	..	..	..	..	..	..	..	63	..	..	..	..	13.43	..	0.98	0.17	0.98	15.39	*
195	Chak Jhumera	5,903	71	57	128	21.68	..	..	39	..	9	..	..	1	..	..	..	..	59	..	..	..	..	6.61	..	1.52	0.17	1.69	9.99	*
196	Toba Tek Singh	7,320	110	99	209	28.55	..	2	78	..	16	..	..	..	..	..	..	..	117	0.27	0.27	..	..	10.66	..	2.19	..	2.87	15.98	*
197	Jaranwala	13,220	281	250	531	40.17	..	2	164	1	34	..	..	..	..	..	..	..	287	0.15	0.15	..	..	12.41	0.08	2.57	..	6.51	21.71	21.79
198	Kamalia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
199	JHANG DISTRICT.	36,035	941	805	1,746	48.45	..	2	277	69	228	..	..	12	1	..	..	..	885	0.06	0.06	..	..	7.69	1.91	6.33	0.36	8.21	24.56	23.31
200	Jhang-Maghiana	25,841	599	579	1,178	45.59	..	7	229	33	90	..	..	7	2	..	..	..	558	..	..	..	..	8.86	1.28	3.48	0.35	7.35	21.59	21.36
201	Chiniot	5,045	81	92	173	34.29	..	..	29	..	4	..	..	1	..	..	..	..	48	..	..	..	..	5.75	..	0.79	0.20	2.78	9.51	18.24
202	Ahmadpur	6,826	182	166	348	50.98	..	8	113	..	39	..	..	3	1	..	..	..	203	1.17	1.17	..	..	16.55	0.73	5.71	0.73	4.83	29.73	*
203	Shorkot	3,216	25	19	44	13.68	..	..	14	..	2	..	..	2	..	..	..	..	28	..	..	..	..	4.35	..	0.62	0.62	3.11	8.71	*
204	Lalian	3,186	4	8	12	3.77	..	..	4	..	4	..	..	..	..	..	..	..	12	..	..	..	..	1.26	..	1.26	..	1.26	3.77	*
205	Garh Maharaj	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

\*Not available.



## ANNUAL FORM No. VI-B (TOWNS)—CONCLUDED.

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE TOWNS OF THE PUNJAB DURING THE YEAR 1931—CONCLUDED.

1	2	3	4			5	6	7	8	9	10	11					12	13	14											
Number.	B.—Towns.	Population according to Census of 1931.	BIRTHS.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	INJURIES.					All other causes.	Total deaths from all causes.	RATIO OF DEATHS-PER 1,000 OF POPULATION.											
			Males.	Females.	Total.							Suicide.	Wounds and acci- dents.	Snake-bite and killed by wild beasts.	Rabies.	Total.			Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diar- rhea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.			
																											For the year.	Mean ratio of previous five years.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MILTAN DISTRICT.																														
203	Multan	107,366	2,528	2,388	4,916	45.79	2	28		483	656	1,068			50		1	51	742	3,030	0.02	0.26		4.50	6.11	9.95	0.48	6.91	28.22	28.93
204	Shujabad	6,618	167	155	322	48.66				123	11	49			1			1	32	216				18.59	1.66	7.40	0.15	4.84	32.64	35.66
205	Jahanian	1,641	15	9	24	14.63				8	1				1			1		10				4.88	0.61		0.61		6.09	3.66
206	Mian Channu	4,349	26	44	70	16.10		1		32	1				1				9	50		0.23		7.36	0.23	1.61		2.07	11.50	9.43
207	Khanewal	11,205	82	94	176	15.71		4		50	3	8			2			4	7	75		0.36		4.46	0.27	0.71	0.09	0.80	6.69	5.53
208	Kahror	8,042	114	76	190	23.61		3		62	9	27			1			1	2	112		0.37		7.71	1.12	3.36	0.50	0.87	13.93	*
209	Kabirwala	2,821	21	25	46	16.31				15		3			1			1	2	21				5.32		1.06	0.35	0.71	7.44	*
210	Burewala	3,271	32	12	44	13.45				12	1	2							5	20				3.67	0.31	0.61		1.53	6.11	*
211	Talamba	5,665	111	65	176	31.07				70	2	6						1	4	99				12.36	0.35	1.06	0.18	3.53	17.48	*
212	Mailsi	4,107	21	22	43	10.47				9	2	7							20	22				2.19	0.49	1.70		0.97	5.36	*
213	Vehari	2,153	19	5	24	11.15				6		13			1			1		20				2.79		6.04	0.46		9.29	*
214	Lcdhran	2,226	46	34	80	35.94		8		41	2	8			1			1	5	65		3.59		18.42	0.90	3.59	0.45	2.25	29.20	*
215	Multan Cantt. MUZAFFAR-GARH DISTRICT.	7,790	23	24	47	6.03				24		14							4	42				3.68		1.80		0.51	5.39	*
Muzaffargarh DISTRICT.																														
216	Muzaffargarh	6,110	118	113	231	37.81		1		77	7	15			1			1	16	117		0.16		12.60	1.15	2.45	0.16	2.62	19.15	21.11
217	Khargarh	2,863	67	68	135	47.15		1		77	13	8			2			2	14	115		0.25		26.89	4.54	2.79	0.70	4.89	40.17	46.80
218	Alipur	3,931	105	72	177	45.03				100	5	10							15	131				25.44	1.27	2.54		3.82	33.32	31.04
219	Leiah	1,578	224	159	383	39.99		7		201	3	5			2			2	33	253		0.73		20.99	0.31	0.52	0.21	3.45	26.41	28.40
220	Karor	3,491	98	65	163	46.69				120	1	2			1			1	22	146				34.37	0.29	0.59	0.29	6.30	41.82	39.53
221	Kot Adu	4,925	123	83	206	41.83		1		87	3	7							4	102		0.20		17.66	0.61	1.42		0.81	20.71	17.66
222	Khairpur Sa- adat.	4,153	40	42	82	19.74				50	1								3	54				12.04	0.24			0.72	13.00	*
DERA GHAZI KHAN DISTRICT.																														
223	Dera Ghazi Khan	23,468	513	469	982	41.84				296	47	38			1		2	4	164	549				12.61	2.00	1.62	0.17	6.99	23.39	22.16
224	Jampur	9,430	210	223	433	45.92				117	11	28			1			1	145	303				12.41	1.17	2.97	0.11	15.38	32.13	27.68
225	Dajal	6,186	185	185	370	59.81		24		124	9	24							93	274		0.11		20.04	1.45	3.88		15.03	44.29	42.03
226	Rajanpur	4,510	143	140	283	62.75		2		82	7	30			3			4	60	185				18.18	1.55	6.65	0.89	13.30	41.02	37.03
227	Kot Mithan	2,680	86	74	160	59.70		4		92	5	3			1			1	38	143		1.49		34.33	1.87	1.12	0.37	14.18	53.36	45.90
228	Kot Chutta	2,619	94	79	173	66.06				22	5	30			1			1	36	94				8.40	1.91	11.45	0.38	13.75	35.89	*
229	Vahoa	3,089	54	46	100	32.37				73	8	6			1			1	4	92				23.63	2.59	1.94	0.32	1.29	29.78	*
230	Taunsa	7,506	78	62	140	18.65		1		96	2	3							18	120		0.13		12.79	0.27	0.40		2.40	15.99	*
Total			60,395	54,537	114,932	36.81	391	579	110	31,621	3,812	14,335	32	7	649	26	34	748	17,924	69,337	0.06	0.19	0.04	10.13	1.22	4.59	0.24	5.74	22.21	21.75
Total of the Province.			528,336	473,915	1,002,251	42.72	391	3,646	1,150	416,974	14,284	55,317	137	135	5,014	708	116	6,110	111,344	609,216	0.02	0.16	0.05	17.77	0.61	2.36	0.26	4.75	25.97	25.73

\*Not available



BIRTHS AND DEATHS REGISTERED AMONG THE INDIAN CIVIL POPULATION IN THE CANTONMENTS OF THE PUNJAB DURING THE YEAR 1931.

Number.	CANTONMENTS.										INJURIES.										Ratio of deaths per 1,000 of population.	Total births registered during the year.	Ratio of births per 1,000 of population.	Number.	
	1	2	3	4	5	6	7	8	9	Suicide.				14	15	16	17	18	19	20					
										Males.	Females.	Wounds and accidents.	Snake bite and killed by wild beasts.												Total.
1			Population according to Census of 1931.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.		10	11	12	13	14	15	16	17	18	19	20				
1	Ambala	..	42,118	4	5	..	326	45	284		..	..	..	..	..	332	996	24	1,605	38	1				
2	Kasauli	..	2,452	..	..	..	11	3	14		..	..	18	18	14	14	60	25	24	10	2				
3	Dagshai	..	1,448	..	..	..	22	5	5		..	..	..	..	..	7	39	27	41	28	3				
4	Subathu	..	1,315	..	..	..	30	1	..		..	..	..	..	..	7	38	29	41	31	4				
5	Jutogh	..	429	..	..	..	11	..	..		..	..	..	..	..	2	13	30	21	49	5				
6	Dharamsala	..	326	..	..	..	44	4	11		..	..	..	..	..	3	62	190	126	387	6				
7	Jullundur	..	9,990	..	1	..	69	10	11		..	3	..	..	3	44	138	14	225	23	7				
8	Ferozepore	..	20,179	..	..	..	544	8	46		..	1	..	..	1	26	625	31	868	43	8				
9	Lahore	..	19,615	..	..	..	142	5	35		..	1	..	..	1	5	188	10	371	19	9				
10	Amritsar	..	959	..	..	..	5	..	3		..	..	..	..	..	5	13	14	24	25	10				
11	Dalhousie	..	695	..	..	..	5	6	6		..	1	..	..	1	4	22	32	32	46	11				
12	Bakloh	..	1,002	..	..	..	60	..	9		..	..	..	..	..	5	74	74	151	151	12				
13	Sialkot	..	8,805	2	..	1	47	5	39		..	1	..	..	1	45	140	16	278	32	13				
14	Jhelum	....	2,433	..	..	..	1	..	1		..	..	..	..	..	1	3	1	19	8	14				
15	Rawalpindi	..	33,610	..	..	..	104	9	63		..	1	..	..	1	78	255	8	552	16	15				
16	Murree	..	425	..	..	..	3	..	..		..	..	..	..	..	..	3	7	10	24	16				
17	Campbellpur	..	1,695	..	..	..	11	..	10		..	1	..	..	1	5	27	16	38	22	17				
18	Multan	..	7,790	..	..	..	24	..	14		..	..	..	..	..	4	42	5	47	6	18				
Total			155,286	6	6	1	1,459	101	551		..	..	9	18	27	587	2,738	18	4,473	29					



ANNUAL FORM No. VI-D.

DEATHS REGISTERED FROM FEVERS, DYSENTERY AND DIARRHŒA AND RESPIRATORY DISEASES IN MUNICIPAL TOWNS IN THE PUNJAB IN CHARGE OF WHOLETEIME MEDICAL OFFICERS OF HEALTH DURING THE YEAR 1931.

Serial No.	TOWNS.	FEVERS.						DYSENTERY AND DIARRHŒA.		RESPIRATORY DISEASES.				Number.
		Malaria.	Enteric fever.	Measles.	Relapsing fever.	Typhus fever.	Other fevers.	Dysentery.	Diarrhœa.	Pneumonia.	Influenza.	Pulmonary Tuberculosis.	Other respiratory diseases.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	16
1	Ambala	2	6	36	..	..	240	17	27	57	..	33	52	1
2	Simla	13	11	1	..	..	4	2	16	162	1	18	52	2
3	Jullundur	6	30	78	..	..	521	60	45	218	..	94	114	3
4	Ludhiana	23	117	10	..	..	279	86	36	255	29	188	75	4
5	Ferozepore	67	8	1	..	..	59	64	37	240	..	30	43	5
6	Lahore	128	58	48	..	..	2,441	173	529	1,152	..	645	17	6
7	Kasur	251	192	14	..	..	50	33	19	53	..	68	33	7
8	Amritsar	4	131	73	..	..	2,638	93	38	358	..	448	1,455	8
9	Sialkot	9	37	10	..	5	663	60	31	273	..	139	125	9
10	Sargodha	11	27	..	..	..	35	28	25	82	2	11	8	10
11	Rawalpindi	15	44	6	..	..	652	81	13	145	2	63	94	11
12	Lyallpur	300	26	7	..	..	15	15	2	149	..	27	5	12
13	Multan	71	210	52	1	..	142	33	598	619	1	193	217	13
Total		900	897	336	1	5	7,739	745	1,416	3,763	35	1,957	2,290	



1	2	3		4	5												6			7			8	9	
		CIRCLES OF REGISTRATION.			MONTHS.												TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.					
		Number in each district.	Number from which deaths were reported.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.			Mean ratio per 1,000 for previous five years.
Number.	DISTRICTS.	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	AMBALA DIVISION.																								
2	Hissar	28	1	963	..	1	..	..	..	..	2	..	..	..	..	..	..	2	..	2	0.004	..	0.002	0.13	1
3	Rohtak	20	1	722	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5	0.004	0.01	0.01	0.09	2
4	Gurgaon	23	..	1,358	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	0.11	3
5	Karnal	24	1	1,380	..	1	..	..	..	..	..	..	1	8	..	..	..	..	..	..	0.002	..	0.001	0.07	4
6	Ambala	22	3	1,723	..	..	..	..	..	..	..	..	1	1	..	..	..	5	4	9	0.01	0.01	0.01	0.10	5
7	Simla	6	1	202	..	..	..	..	..	..	..	..	1	1	..	..	..	2	..	2	0.09	..	0.06	..	6
8	JULLUNDUR DIVISION.																								
9	Kangra	20	3	713	..	3	..	..	..	2	..	1	1	11	..	..	..	9	6	15	0.02	0.02	0.02	0.37	7
10	Hoshiarpur	26	4	2,099	..	4	..	1	..	..	10	10	4	..	..	..	..	11	5	16	0.02	0.01	0.02	0.10	8
11	Jullundur	19	4	1,210	..	4	..	..	..	..	..	..	7	..	..	..	..	7	10	17	0.01	0.02	0.02	0.09	9
12	Ludhiana	15	5	851	..	5	..	..	..	..	..	..	6	7	..	..	..	8	5	13	0.02	0.02	0.02	0.14	10
13	Ferozepore	32	2	1,597	..	2	..	1	..	..	..	5	8	..	1	..	..	10	5	15	0.02	0.01	0.01	0.61	11
14	LAHORE DIVISION.																								
15	Lahore	37	13	1,121	..	13	..	..	1	1	5	8	27	16	11	..	..	37	32	69	0.05	0.06	0.05	0.70	12
16	Amritsar	20	10	1,036	..	10	..	..	..	4	1	4	17	10	2	..	..	27	13	40	0.04	0.03	0.04	0.18	13
17	Gurdaspur	31	6	2,243	..	6	..	..	..	1	..	3	1	5	6	..	..	10	6	16	0.02	0.01	0.02	0.05	14
18	Sialkot	29	9	2,066	..	9	..	..	4	2	..	..	..	14	57	4	..	49	32	81	0.09	0.07	0.08	0.04	15
19	Gujranwala	22	3	1,219	..	3	..	..	..	..	1	1	11	7	..	3	..	11	12	23	0.03	0.04	0.03	0.04	16
20	Sheikhupura	22	5	1,031	..	5	..	..	..	..	1	2	10	..	..	..	..	8	5	13	0.02	0.02	0.02	0.07	17
21	RAWALPINDI DIVISION.																								
22	Gujrat	22	1	1,440	..	1	..	..	..	..	..	..	9	..	..	..	..	4	5	9	0.01	0.01	0.01	0.02	18
23	Shahpur	28	2	973	..	2	..	..	..	..	..	5	..	1	..	..	..	2	4	6	0.004	0.01	0.01	0.01	19
24	Jhelum	16	..	884	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.02	20
25	Rawalpindi	16	1	1,170	..	1	..	..	..	..	1	..	..	..	..	..	..	1	..	1	0.003	0.001	0.001	0.04	21
26	Attock	15	..	615	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.01	22
27	Mianwali	16	..	398	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.11	23
28	MULTAN DIVISION.																								
29	Montgomery	23	11	1,958	..	11	..	..	1	6	3	..	8	1	..	..	..	8	11	19	0.01	0.02	0.02	0.13	24
30	Lyallpur	26	3	1,241	..	3	..	..	..	..	..	..	1	..	7	..	..	5	3	8	0.01	0.01	0.01	0.10	25
31	Jhang	18	..	981	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.001	26
32	Multan	33	3	1,916	..	3	..	..	2	1	..	..	2	..	3	..	..	5	3	8	0.01	0.01	0.01	0.01	27
33	Muzaffargarh	25	2	862	..	2	..	..	..	..	..	..	3	..	..	..	..	1	2	3	0.003	0.01	0.01	0.02	28
34	Dera Ghazi Khan	25	..	739	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.004	29
	Total	664	94	34,621	97	..	2	2	8	17	13	51	118	86	87	7	..	225	166	391	0.02	0.02	0.02	0.23	



ANNUAL FORM No. VIII.

DEATHS REGISTERED FROM SMALL-POX IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1931.

1 Number.	2 Districts.	3 CIRCLES OF REGISTRATION.		4 VILLAGES.		5 MONTHS.												6 TOTAL.			7 NUMBER OF DEATHS AMONG CHILDREN.		8 RATIO OF DEATHS PER 1,000 OF POPULATION.			9 Mean ratio per 1,000 for previous five years.	
		Number in each district.	Number from which deaths from Small- pox were re- ported.	Number in each district.	Number from which deaths from Small- pox were re- ported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Under one year.	Over one year and under ten years.	Males.	Females.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
AMBALA DIVISION.																											
1	Hissar	28	22	963	215	48	46	33	28	28	28	31	8	24	4	6	9	134	131	265	89	138	0.28	0.32	0.29	0.64	
2	Rohtak	20	17	722	6	16	47	33	16	4	6	5	1	1	..	2	1	78	54	132	27	72	0.18	0.14	0.16		
3	Gurgaon	23	3	1,358	5	..	1	..	..	4	..	..	..	..	..	..	..	2	3	5	1	1	0.01	0.01	0.01	0.25	
4	Karnal	24	13	1,380	15	3	7	12	3	12	2	..	..	..	..	1	4	30	14	44	15	21	0.06	0.04	0.05	0.12	
5	Ambala	22	11	1,723	12	..	1	3	17	10	10	4	3	2	..	..	..	30	20	50	6	35	0.07	0.06	0.07	0.24	
6	Simla	6	1	202	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	0.04	..	0.03	0.27	
JULLUNDUR DIVISION.																											
7	Kangra	20	3	713	..	..	..	..	..	2	..	1	..	..	..	..	1	2	2	4	1	1	0.004	0.01	0.01	0.13	
8	Hoshiarpur	26	7	2,099	4	34	23	23	23	34	30	23	13	6	8	4	4	113	123	236	53	122	0.20	0.26	0.23	0.85	
9	Jullundur	19	10	1,210	..	7	8	7	10	9	4	7	1	2	..	..	1	26	30	56	10	18	0.05	0.07	0.06	0.18	
10	Ludhiana	15	10	851	29	13	3	10	4	6	3	4	4	2	..	..	..	31	18	49	14	27	0.08	0.06	0.07	0.37	
11	Ferozepore	32	12	1,507	30	46	51	35	34	41	31	22	17	8	8	5	6	151	153	304	158	122	0.24	0.30	0.27	0.37	
LAHORE DIVISION.																											
12	Lahore	37	28	1,121	262	16	49	39	24	80	89	81	34	16	4	20	2	215	230	445	127	259	0.28	0.40	0.33	0.71	
13	Amritsar	20	14	1,036	78	23	13	7	18	15	16	15	8	10	6	6	7	75	72	147	47	46	0.12	0.15	0.13	0.38	
14	Gurdaspur	31	16	2,243	41	2	4	3	9	8	8	12	6	1	2	1	1	28	29	57	13	18	0.05	0.07	0.06	0.25	
15	Sialkot	22	22	2,036	231	77	54	43	46	86	64	57	28	13	4	5	4	224	257	481	125	236	0.42	0.58	0.30	0.48	
16	Gujranwala	22	13	1,219	21	9	14	7	7	18	13	6	7	7	1	1	8	50	48	98	25	50	0.12	0.15	0.13	0.55	
17	Sheikhpura	22	16	1,031	37	15	11	14	5	9	16	12	10	..	3	..	4	57	42	99	21	48	0.15	0.13	0.14	0.53	
RAWALPINDI DIVISION.																											
18	Gujrat	22	20	1,440	186	19	46	40	22	92	71	40	5	9	3	..	7	183	168	351	111	169	0.37	0.40	0.38	0.61	
19	Shahpur	28	12	973	16	6	4	6	..	11	1	5	3	4	..	1	5	28	21	49	14	25	0.06	0.06	0.06	0.58	
20	Jhelum	16	10	884	30	9	8	6	7	12	12	8	3	2	..	..	..	28	39	67	19	39	0.10	0.15	0.12	0.27	
21	Rawalpindi	16	5	1,170	8	6	..	..	..	..	1	..	2	..	..	..	..	4	5	9	4	3	0.01	0.02	0.01	0.20	
22	Attock	15	6	615	18	..	5	13	3	13	17	5	..	..	..	..	..	17	39	56	7	37	0.06	0.14	0.10	0.34	
23	Mianwali	16	4	398	6	2	2	5	2	4	..	..	1	..	..	..	..	10	6	16	2	12	0.05	0.03	0.04	0.19	
MULTAN DIVISION.																											
24	Montgomery	28	25	1,958	74	3	5	10	9	26	25	4	4	1	4	3	11	53	47	105	20	68	0.11	0.11	0.11	0.89	
25	Lyallpur	26	19	1,241	66	9	10	9	5	7	13	13	11	4	2	2	8	57	43	100	46	36	0.09	0.08	0.08	0.52	
26	Jhang	18	10	981	42	8	9	7	9	2	8	6	4	1	1	..	15	35	36	71	19	38	0.10	0.12	0.11	0.14	
27	Multan	33	25	1,916	105	15	38	21	20	23	17	21	19	6	3	9	12	92	112	204	41	105	0.14	0.21	0.17	0.29	
28	Muzaffargarh	25	13	862	27	2	5	..	..	..	7	12	17	..	..	5	6	29	25	54	14	27	0.09	0.09	0.09	0.27	
29	Dera Ghazi Khan	25	13	739	15	5	27	7	2	7	8	4	9	6	..	9	7	51	40	91	16	55	0.19	0.18	0.19	0.47	
Total		664	393	34,621	1,854	393	491	393	328	563	472	399	218	125	61	80	123	1,839	1,807	3,646	1,045	1,828	0.14	0.17	0.16	0.42	

XXX



DEATHS REGISTERED FROM PLAGUE IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1931.

1	2	3		4		5										6			7			8	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Number.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		MONTHS.										TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	Number.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Number in each district.	Number from which deaths were reported.	Number in each district.	Number from which deaths were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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ANNUAL FOR

MONTHLY STATEMENT OF PLAGUE OCCURRENCES IN BRITIS

Serial No.	Districts and Punjab States.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Hissar .. ..	..	..	..	..	..	..	..	..	..	..	..	..
2	Rohtak .. ..	..	..	..	..	..	..	..	..	..	..	..	..
3	Gurgaon .. ..	..	..	..	..	..	..	..	..	..	..	..	..
4	Karnal .. ..	..	..	..	..	..	..	..	..	..	..	..	..
5	Ambala .. ..	..	..	..	..	..	..	..	..	..	..	..	..
6	Simla .. ..	..	..	..	..	..	..	..	..	..	..	..	..
7	Kangra .. ..	..	..	..	..	..	..	..	..	..	..	..	..
8	Hoshiarpur ..	67	54	64	49	158	113	290	245	150	133	14	10
9	Jullundur ..	1	1	..	..	..	..	2	2	..	..	..	..
10	Ludhiana ..	..	..	..	..	..	..	..	..	..	..	..	..
11	Ferozepur ..	..	..	..	..	..	..	..	..	..	..	..	..
12	Lahore .. ..	..	..	..	..	..	..	..	..	..	..	..	..
13	Amritsar ..	..	..	..	..	..	..	..	..	..	..	..	..
14	Gurdaspur ..	7	2	31	13	33	17	134	57	33	38	..	1
15	Sialkot .. ..	38	17	35	25	211	67	340	183	36	72	4	3
16	Gujranwala ..	..	..	..	..	..	..	..	..	..	..	..	..
17	Sheikhupura ..	..	..	..	..	..	..	2	1	..	..	..	..
18	Gujrat .. ..	..	..	..	..	..	..	..	..	..	..	..	..
19	Shahpur .. ..	..	..	..	..	..	..	..	..	..	..	..	..
20	Jhelum .. ..	..	..	..	..	..	..	..	..	..	..	..	..
21	Rawalpindi ..	..	..	..	..	..	..	..	..	..	..	..	..
22	Attock .. ..	..	..	..	..	..	..	..	..	..	..	..	..
23	Mianwali ..	..	..	..	..	..	..	..	..	..	..	..	..
24	Montgomery ..	..	..	..	..	..	..	1	1	..	..	..	..
25	Lyallpur .. ..	..	..	..	..	..	..	..	..	..	..	..	..
26	Jhang .. ..	..	..	..	..	..	..	..	..	..	..	..	..
27	Multan .. ..	..	..	..	..	..	..	..	..	..	..	..	..
28	Muzaffargarh ..	..	..	..	..	..	..	..	..	..	..	..	..
29	Dera Ghazi Khan ..	..	..	..	..	..	..	..	..	..	..	..	..
	Total British Districts	113	74	130	87	402	197	769	489	219	243	18	14
1	Patiala .. ..	..	..	..	..	..	..	..	..	..	..	..	..
2	Bahawalpur ..	..	..	..	..	..	..	..	..	..	..	..	..
3	Jind .. ..	..	..	..	..	..	..	..	..	..	..	..	..
4	Nabha .. ..	..	..	..	..	..	..	..	..	..	..	..	..
5	Kapurthala ..	..	..	..	..	..	..	1	..	..	..	..	..
6	Sirmoor (Nahan) ..	..	..	..	..	..	..	..	..	..	..	..	..
7	Malerkotla ..	..	..	..	..	..	..	..	..	..	..	..	..
8	Faridkot .. ..	..	..	..	..	..	..	..	..	..	..	..	..
9	Pataudi .. ..	..	..	..	..	..	..	..	..	..	..	..	..
10	Kalsia .. ..	..	..	..	..	..	..	..	..	..	..	..	..
11	Dujana .. ..	..	..	..	..	..	..	..	..	..	..	..	..
12	Nalagarh .. ..	..	..	..	..	..	..	..	..	..	..	..	..
	Total Punjab States ..	..	..	..	..	..	..	1	..	..	..	..	..
	GRAND TOTAL ..	113	74	130	87	402	197	770	489	219	243	18	14



No. IX (B).

DISTRICTS AND PUNJAB STATES IN THE PUNJAB DURING THE YEAR 1931.

JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		TOTAL.		Serial No.	REMARKS.
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	
..	1	..	..	..	..	..	..	..	..	41	22	784	627	8	
..	..	..	..	..	..	..	..	..	..	..	..	3	3	9	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	
..	..	..	..	2	2	..	..	..	..	..	..	2	2	12	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	
..	..	..	..	..	..	..	..	2	2	40	11	280	141	14	
..	..	..	..	..	..	5	..	..	2	10	6	679	375	15	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	
..	..	..	..	..	..	..	..	..	..	..	..	2	1	17	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	19	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	21	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	23	
..	..	..	..	..	..	..	..	..	..	..	..	1	1	24	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	25	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	26	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	27	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	29	
..	1	..	..	2	2	5	..	2	4	91	39	1,751	1,150		
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	
..	..	..	..	..	..	..	..	..	..	..	..	1	..	5	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	
..	..	..	..	..	..	..	..	..	..	..	..	1	..		
..	1	..	..	2	2	5	..	2	4	91	39	1,752	1,150		



ANNUAL FORM No. X.

DEATHS REGISTERED FROM FEVERS IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1931.

1	2	3	4	5					6	7	8													
Number.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		MONTHS.								TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.		Mean ratio per 1,000 for previous five years.						
		Number in each district.	Number from which deaths were reported.	Number in each district.	Number from which deaths from Fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		Males.	Females.	Total.	Males.	Females.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	AMBALA DIVISION.																							
2	Hissar	28	28	963	947	1,459	1,236	1,498	872	899	1,368	1,117	917	1,220	1,391	1,322	1,280	7,700	6,879	14,579	15.86	16.63	16.21	16.69
3	Rohtak	20	20	722	722	1,091	1,057	1,221	1,259	1,402	1,212	991	832	1,078	1,328	1,671	1,332	7,590	6,884	14,474	17.54	18.47	17.97	19.76
4	Gurgaon	23	23	1,358	1,351	1,110	1,004	943	894	1,068	1,019	857	730	1,035	1,431	1,484	1,137	6,777	5,935	12,712	17.01	17.38	17.18	21.08
5	Karnal	24	24	1,380	1,390	1,520	1,297	1,526	1,307	1,687	1,450	1,300	941	1,293	1,852	2,208	1,920	9,188	9,113	18,301	19.56	23.81	21.47	19.50
6	Ambala	22	22	1,723	1,714	524	445	552	637	841	902	1,247	742	806	1,643	1,524	1,267	5,759	5,371	11,130	13.97	16.82	15.21	10.96
7	Simla	6	6	202	179	7	6	8	15	25	32	22	10	24	22	12	6	99	90	189	4.32	7.15	5.32	3.44
8	JULLUNDUR DIVISION.																							
9	Kangra	20	20	713	709	822	813	998	940	1,250	1,091	903	910	1,001	1,096	1,112	954	6,228	5,662	11,890	15.05	14.70	14.88	12.75
10	Hoshiarpur	26	26	2,099	2,005	1,736	1,343	1,513	1,622	1,968	1,864	1,685	1,321	1,639	2,151	2,114	1,790	10,707	10,039	20,746	19.40	20.90	20.10	19.96
11	Jullundur	19	19	1,210	1,136	1,229	1,022	1,040	1,030	1,341	1,433	1,551	1,395	1,548	1,626	1,696	1,272	8,366	7,817	16,183	16.48	18.17	17.26	16.64
12	Ludhiana	15	15	851	798	789	559	614	604	874	1,403	1,548	688	727	1,032	1,174	797	5,528	5,081	10,609	14.72	17.11	15.78	13.83
13	Ferozepore	31	31	1,507	1,490	1,973	1,718	1,601	1,492	1,748	1,630	1,739	1,460	1,654	2,590	3,231	2,515	12,432	10,919	23,351	19.82	21.10	20.40	14.95
14	LAHORE DIVISION.																							
15	Lahore	37	36	1,121	1,112	1,785	1,460	1,468	1,294	1,640	1,594	1,535	1,168	1,195	2,336	2,894	2,171	10,979	9,561	20,540	14.06	16.47	15.09	12.04
16	Amritsar	20	20	1,036	1,035	1,428	1,063	1,149	1,158	1,775	1,852	1,784	1,550	1,994	2,524	2,528	2,243	11,161	9,887	21,048	17.99	19.93	18.86	17.70
17	Gurdaspur	31	31	2,243	2,246	1,329	1,144	1,095	1,041	1,409	1,365	1,269	1,167	1,753	2,616	2,551	1,793	9,571	8,961	18,532	18.05	20.46	19.14	15.55
18	Sialkot	29	29	2,066	2,053	1,319	946	909	786	1,186	1,063	1,094	1,230	1,742	2,348	2,065	1,496	8,297	7,887	16,184	15.66	17.90	16.68	16.61
19	Gujranwala	22	22	1,219	1,212	1,892	1,190	1,056	693	1,066	1,028	927	1,055	1,134	1,738	2,062	2,227	8,393	7,675	16,068	20.54	23.44	21.83	19.31
20	Sheikhpura	22	22	1,031	1,214	1,199	910	867	681	1,007	996	935	1,063	992	1,346	1,579	1,747	7,233	6,089	13,322	18.82	19.50	19.12	16.24
21	RAWALPINDI DIVISION.																							
22	Gujrat	22	22	1,440	1,436	1,737	1,248	995	845	990	981	909	1,028	1,199	1,361	1,450	1,378	7,474	6,647	14,121	15.00	15.68	15.31	14.99
23	Shahpur	28	28	973	989	1,690	1,412	1,183	1,062	1,130	1,155	825	908	840	836	1,079	1,353	7,138	6,335	13,473	16.01	16.86	16.40	17.88
24	Jhelum	16	16	884	888	1,226	922	696	552	551	590	510	564	576	826	875	959	4,593	4,254	8,847	16.48	16.47	16.47	16.84
25	Rawalpindi	16	16	1,170	1,170	1,218	902	830	636	627	603	591	590	712	771	879	1,044	5,086	4,317	9,403	15.32	14.99	15.17	14.39
26	Attock	15	15	615	618	1,490	1,209	1,008	758	616	666	643	639	670	700	895	1,325	5,702	4,917	10,619	18.73	17.83	18.30	18.41
27	Mianwali	16	16	398	441	1,326	1,258	1,038	620	667	621	558	543	610	732	856	990	5,247	4,572	9,819	24.30	23.39	23.87	22.26
28	MULTAN DIVISION.																							
29	Montgomery	28	28	1,958	1,833	2,121	1,598	1,738	1,116	1,315	1,079	898	891	978	1,164	1,676	2,154	9,015	7,713	16,728	16.32	17.25	16.73	14.61
30	Lyallpur	26	27	1,241	1,355	1,637	1,616	1,384	1,228	1,884	1,704	1,334	1,624	1,578	1,547	1,678	1,549	9,544	9,219	18,763	15.13	17.71	16.30	15.15
31	Jhang	18	17	981	997	1,339	1,077	1,070	799	858	755	667	785	649	615	702	965	5,388	4,893	10,281	15.15	15.83	15.47	15.45
32	Multan	33	33	1,916	1,645	2,275	2,131	2,057	1,736	1,864	1,444	1,094	1,032	1,081	1,185	1,655	2,178	10,516	9,216	19,732	16.37	17.45	16.86	15.50
33	Muzaffargarh	25	25	862	848	1,707	1,557	1,807	1,088	1,183	982	812	698	691	979	1,369	1,893	7,829	6,937	14,766	24.42	25.63	24.97	22.92
34	Dera Ghazi Khan	25	25	739	611	1,248	1,245	1,180	763	787	657	554	513	660	721	940	1,296	5,849	4,715	10,564	21.72	21.27	21.51	20.17
35	Total	664	662	34,621	34,144	40,226	33,388	33,044	27,528	33,658	32,539	29,699	26,994	31,079	40,507	45,281	43,031	219,389	197,585	416,974	17.14	18.53	17.77	16.50

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ANNUAL FORM No. XI.

DEATHS REGISTERED FROM DYSENTERY AND DIARRHOEA IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1931.

1	2	3	4	5	6	7	8																	
Number.	Districts.	CIRCLES OF REGISTRATION.		MONTHS.												TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.		
		Number in each district.	Number from which deaths from Dysentery and Diarrhoea were reported.	VILLAGES.												Males.	Females.	Total.	Males.	Females.	Total.			
				Number in each district.	Number from which deaths from Dysentery and Diarrhoea were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.								November.	December.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
AMBALA DIVISION.																								
1	Hissar	28	27	963	472	23	14	8	21	19	23	32	36	46	36	30	26	165	149	314	0.34	0.36	0.35	0.38
2	Rohtak	20	20	722	95	19	3	13	12	11	6	9	20	23	38	26	26	123	83	206	0.28	0.22	0.26	0.34
3	Gurgaon	23	21	1,358	94	26	13	15	14	11	17	17	28	27	31	25	28	128	124	252	0.32	0.36	0.34	0.56
4	Karnal	24	24	1,380	163	52	42	55	43	38	91	21	19	18	27	29	13	250	198	448	0.53	0.52	0.53	0.52
5	Ambala	22	22	1,723	150	3	4	3	18	18	19	61	31	59	70	63	33	220	162	382	0.53	0.51	0.52	0.30
6	Simla	6	5	202	86	7	..	4	3	8	14	14	13	7	9	4	6	48	41	89	2.10	3.26	2.51	1.21
JULLUNDUR DIVISION.																								
7	Kangra	20	20	713	709	267	300	333	227	398	425	314	214	250	409	328	284	1,798	1,951	3,749	4.34	5.06	4.69	3.67
8	Hoshiarpur	26	25	2,099	302	16	26	24	40	62	64	51	52	78	98	65	47	348	275	623	0.63	0.57	0.60	0.16
9	Jullundur	19	18	1,210	71	15	11	18	31	18	19	20	23	46	34	24	24	150	133	283	0.30	0.31	0.30	0.36
10	Ludhiana	15	15	851	100	9	14	2	12	15	20	4	6	17	22	16	10	82	65	147	0.22	0.22	0.22	0.36
11	Ferozepore	32	26	1,507	1,375	25	12	16	28	48	39	26	69	53	40	69	32	251	206	457	0.40	0.40	0.40	0.27
LAHORE DIVISION.																								
12	Lahore	37	30	1,121	80	25	25	47	54	64	103	79	226	147	106	117	277	615	655	1,270	0.79	1.13	0.93	0.65
13	Amritsar	20	20	1,036	301	22	14	14	20	37	25	21	42	42	43	53	31	218	146	364	0.35	0.29	0.33	0.39
14	Gurdaspur	31	31	2,243	318	52	14	89	61	146	148	168	152	175	233	142	150	827	703	1,530	1.56	1.60	1.58	0.72
15	Sialkot	29	27	2,066	306	10	11	12	21	48	32	27	42	64	128	81	52	305	223	528	0.58	0.51	0.54	0.42
16	Gujranwala	22	15	1,219	16	6	5	4	1	9	4	3	10	8	14	9	5	45	33	78	0.11	0.10	0.11	0.22
17	Sheikhpura	22	17	1,031	15	2	2	2	3	5	4	2	4	14	1	6	7	30	22	52	0.08	0.07	0.07	0.08
RAWALPINDI DIVISION.																								
18	Gujrat	22	11	1,440	25	3	..	1	4	5	4	1	2	18	8	6	13	30	35	65	0.06	0.08	0.07	0.19
19	Shahpur	28	27	973	155	23	14	13	20	23	29	17	27	17	13	11	19	123	103	226	0.28	0.27	0.28	0.34
20	Jhelum	16	15	884	57	6	4	2	10	15	10	6	17	7	12	12	4	76	29	105	0.27	0.11	0.20	0.26
21	Rawalpindi	16	15	1,170	942	185	186	143	128	115	101	102	129	155	140	183	205	935	837	1,772	2.82	2.91	2.86	2.43
22	Attock	15	10	615	13	2	..	..	1	1	2	1	3	6	2	2	..	11	9	20	0.04	0.03	0.03	0.07
23	Mianwali	16	13	398	29	5	2	5	1	5	3	8	8	7	8	10	6	43	25	68	0.20	0.13	0.17	0.14
MULTAN DIVISION.																								
24	Montgomery	28	24	1,958	43	2	3	4	2	4	4	3	7	7	7	6	5	31	23	54	0.06	0.05	0.05	0.09
25	Lyallpur	26	19	1,241	827	7	3	2	3	3	3	1	8	5	13	18	18	48	36	84	0.08	0.07	0.07	0.15
26	Jhang	18	13	981	163	12	4	11	8	15	19	13	22	18	23	22	15	108	74	182	0.30	0.24	0.27	0.40
27	Multan	33	22	1,916	526	30	25	26	59	58	63	75	110	109	68	47	34	345	359	704	0.54	0.68	0.60	0.27
28	Muzaffargarh	25	22	862	51	29	27	6	9	5	6	..	..	1	7	2	12	56	48	104	0.17	0.18	0.18	0.16
29	Dera Ghazi Khan	25	21	739	28	9	5	11	9	8	10	12	11	9	14	18	12	71	57	128	0.26	0.26	0.26	0.32
Total		664	575	34,621	7,512	892	783	883	863	1,212	1,307	1,108	1,331	1,433	1,654	1,424	1,394	7,480	6,804	14,284	0.58	0.64	0.61	0.50

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ANNUAL FORM No. XII.

DEATHS REGISTERED FROM RESPIRATORY DISEASES IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1931.

1	2	3		4	5												6			7			8	
		CIRCLES OF REGISTRATION.			MONTHS.												TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.				
		Number in each district.	Number from which deaths from Respiratory Diseases were reported.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.		Mean ratio per 1,000 for previous five years.
Number.	Districts.	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	AMBALA DIVISION.																							
2	Hissar	28	27	963	572	30	42	57	141	146	57	94	97	117	67	48	67	500	463	963	1·03	1·12	1·07	1·87
3	Rohtak	20	20	722	511	144	154	154	105	102	79	71	74	62	82	94	129	693	557	1,250	1·60	1·49	1·55	2·20
4	Gurgaon	23	23	1,358	486	163	168	216	113	96	110	85	78	76	93	122	136	793	663	1,456	1·99	1·94	1·97	2·47
5	Karnal	24	24	1,380	652	150	123	69	97	65	114	67	33	69	78	94	105	573	491	1,064	1·22	1·28	1·25	2·09
6	Ambala	22	22	1,723	1,714	855	740	862	782	828	723	99	65	120	76	87	114	2,917	2,434	5,351	7·08	7·62	7·31	9·91
7	Simla	6	4	202	81	26	15	24	16	52	46	25	24	26	27	13	10	178	126	304	7·77	10·01	8·56	1·94
8	JULLUNDUR DIVISION.																							
9	Kangra	20	20	713	709	443	449	558	389	533	556	427	355	417	527	523	511	2,814	2,874	5,688	6·80	7·46	7·12	5·97
10	Hoshiarpur	26	26	2,099	1,503	352	320	187	141	125	149	150	130	312	144	192	201	1,374	1,029	2,403	2·49	2·14	2·30	2·28
11	Jullundur	19	19	1,210	238	160	203	136	127	127	140	158	105	129	122	129	183	957	762	1,719	1·89	1·77	1·83	2·07
12	Ludhiana	15	15	851	210	76	85	35	38	45	76	82	147	136	246	167	145	678	600	1,278	1·81	2·02	1·90	2·31
13	Ferozepore	32	27	1,507	1,415	351	441	312	212	191	159	181	153	114	105	198	202	1,438	1,181	2,619	2·29	2·28	2·29	1·92
14	LAHORE DIVISION.																							
15	Lahore	37	36	1,121	531	399	379	367	221	250	276	337	312	189	195	357	500	2,140	1,642	3,782	2·74	2·83	2·78	2·67
16	Amritsar	20	20	1,036	982	436	396	345	324	439	451	323	311	243	275	361	304	2,185	2,023	4,208	3·52	4·08	3·77	3·70
17	Gurdaspur	31	31	2,243	710	251	222	155	145	204	210	169	152	209	398	504	384	1,601	1,402	3,003	3·02	3·20	3·10	3·27
18	Sialkot	29	29	2,066	1,509	509	390	284	215	236	175	246	249	334	374	346	382	2,139	1,601	3,740	4·04	3·63	3·85	3·30
19	Gujranwala	22	22	1,219	212	219	111	74	50	32	39	26	34	32	34	44	79	489	285	774	1·20	0·87	1·05	1·44
20	Sheikhpura	22	22	1,031	212	89	72	44	22	16	20	8	18	78	13	19	21	278	142	420	0·72	0·45	0·60	0·55
21	RAWALPINDI DIVISION.																							
22	Gujrat	22	22	1,440	549	243	187	126	110	63	81	83	62	85	81	93	221	787	648	1,435	1·58	1·53	1·56	2·90
23	Shahpur	28	28	973	508	579	541	393	202	102	74	74	63	47	60	95	336	1,506	1,060	2,566	3·38	2·82	3·12	1·73
24	Jhelum	16	16	884	425	203	164	113	74	71	67	53	76	53	61	75	111	672	449	1,121	2·41	1·74	2·09	1·95
25	Rawalpindi	16	15	1,170	953	383	232	222	104	85	97	92	88	74	93	140	263	994	879	1,873	2·99	3·05	3·02	2·49
26	Attock	15	15	615	259	179	118	76	75	94	70	78	69	65	88	81	100	644	449	1,093	2·12	1·63	1·88	1·29
27	Mianwali	16	16	398	75	74	64	29	30	25	18	19	26	25	38	28	53	242	187	429	1·12	0·96	1·04	1·02
28	MULTAN DIVISION.																							
29	Montgomery	28	28	1,958	627	163	197	160	70	52	32	23	18	20	20	40	60	544	311	855	0·98	0·70	0·86	0·50
30	Lyallpur	26	27	1,241	1,189	261	191	116	48	69	44	17	58	48	73	145	185	710	545	1,255	1·13	1·05	1·09	0·65
31	Jhang	18	17	981	837	290	349	320	161	101	91	67	58	71	95	153	299	1,160	895	2,055	3·26	2·90	3·09	1·59
32	Multan	33	32	1,916	1,278	248	285	280	175	123	113	93	90	77	78	109	199	1,009	861	1,870	1·57	1·63	1·60	1·12
33	Muzaffargarh	25	24	862	137	34	115	35	8	6	1	12	16	7	14	26	70	189	155	344	0·59	0·57	0·58	0·45
34	Dera Ghazi Khan	25	25	739	106	64	64	37	39	15	18	23	24	18	19	32	46	221	178	399	0·82	0·80	0·81	0·52
35	Total	664	652	34,621	19,190	7,374	6,817	5,786	4,234	4,293	4,086	3,182	2,985	3,253	3,576	4,315	5,416	30,425	24,892	55,317	2·38	2·33	2·36	2·31

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**ANNUAL FORMS—(Vaccination).**

**A—VACCINE DEPARTMENT.**

**STATEMENT No. I—SHOWING PARTICULARS OF VACCINATION IN THE PUNJAB PROVINCE  
DURING THE YEAR 1931-32.**

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## ANNUAL FORMS

## A.—VACCINE

## STATEMENT No. I.—SHOWING PARTICULARS OF VACCINATION

Serial No.	Division.	(a) Districts excluding Municipal towns. (b) Municipal towns.	Population of districts (exclud- ing Municipal towns) and Municipal towns according to census of 1931.	Average population of districts per square mile.	Average number of vaccinators employed throughout the year.	TOTAL NUMBER OF PER- SONS VACCINATED.			Average number of persons vacci- cinated by each vaccinator.	PRIMARY VACCINATION.				
						Males.	Females.	Total.		Total.	Successful.			
											Under one year.	One year and under six years.	Total of all ages.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
		(a) Districts excluding Municipal towns.												
1	AMBALA DIVISION.	Hissar .. ..	801,081	173	11	24,400	17,105	41,505	3,773	27,630	22,688	4,050	26,837	
2		Rohtak .. ..	723,169	326	14	28,314	17,509	45,823	3,273	29,645	23,490	4,047	27,591	
3		Gurgaon .. ..	680,880	327	18	20,959	13,766	34,725	1,929	25,147	18,721	4,761	23,518	
4		Karnal .. ..	756,302	273	14	37,301	23,753	61,054	4,361	26,560	22,180	2,563	24,828	
5		Ambala .. ..	618,812	106	15	28,041	18,542	46,583	3,106	20,610	14,134	4,329	18,557	
6		Simla .. ..	14,160	351	..				No local staff is employed.				Vaccination is	
			Total .. ..	3,594,404	..	72	139,015	90,675	229,690	..	129,592	101,213	19,750	121,331
			(b) Municipal towns.											
1			Hissar ....	25,179	..	1	400	289	689	689	487	361	46	422
2			Hansi .. ..	18,356	..	1	323	346	669	669	634	556	57	613
3			Bhiwani .. ..	35,866	..	1	631	576	1,207	1,207	1,162	934	158	1,092
4			Sirsa .. ..	18,909	..	1	603	199	802	802	451	318	97	421
5			Rohtak .. ..	35,235	..	1	962	513	1,475	1,475	1,034	934	57	993
6			Jhajjar .. ..	12,232	..	..	554	263	817	..	514	329	79	409
7			Gohana .. ..	5,045	..	..	157	83	240	..	167	154	8	162
8			Bahadurgarh ..	6,963	..	..	252	147	399	..	280	244	16	264
9			Sonepat .. ..	15,050	..	1	371	262	633	633	504	461	31	494
10			Beri .. ..	7,877	..	..	118	65	183	..	138	110	13	123
11			Rewari .. ..	26,269	..	1	1,171	435	1,606	1,606	943	859	38	919
12			Palwal .. ..	10,807	..	1	501	289	790	790	492	457	17	487
13			Ferozepore .. ..	5,390	..	..	183	101	284	..	193	185	2	187
14			Hodal .. ..	7,258	..	..	202	133	335	..	288	283	4	287
15			Ballabgarh .. ..	4,162	..	..	139	65	204	..	149	139	6	145
16			Faridabad .. ..	5,134	..	..	111	62	173	..	110	103	5	108
17			Karnal .. ..	26,610	..	1	1,148	454	1,602	1,602	829	557	85	652
18			Kaithal .. ..	19,418	..	1	764	371	1,135	1,135	794	575	178	771
19			Panipat .. ..	32,915	..	1	688	638	1,326	1,326	1,207	1,162	35	1,198
20		Shahabad .. ..	12,293	..	1	392	280	672	672	411	380	18	399	
21		Thanesar .. ..	5,032	..	..	111	20	131	..	21	10	3	14	
22		Ambala .. ..	34,855	..	1	2,111	1,029	3,140	3,140	13,91	1,147	190	1,369	
23		Jagadhari .. ..	13,262	..	1	417	281	698	698	529	447	48	498	
24		Burya* .. ..	3,494	..	..	67	51	118	..	118	86	24	110	
25		Sadhaura .. ..	7,769	..	1	380	215	595	..	319	269	35	304	
26		Rupar .. ..	8,764	..	1	494	184	678	678	344	269	44	314	
27		Simla .. ..	18,144	..	2	2,640	353	2,993	1,496	482	249	149	403	
		Total of Municipal towns ..	422,288	..	18	15,890	7,704	23,594	1,388	13,991	11,578	1,443	13,158	
		Total of Ambala Division ..	4,016,692	..	90	154,905	98,379	253,284	2,172	143,583	112,791	21,193	134,489	
		(a) Districts excluding Municipal towns.												
1	JULLUNDUR DIVISION.	Kangra .. ..	794,832	80	13	49,481	38,665	88,146	6,780	24,707	16,978	5,351	22,348	
2		Hoshiarpur .. ..	995,941	459	13	27,890	16,874	44,764	3,443	31,753	22,481	6,114	29,592	
3		Jullundur .. ..	810,353	655	14	27,067	16,293	43,360	3,097	28,508	25,586	1,003	26,699	
4		Ludhiana .. ..	564,972	463	13	24,526	17,103	41,629	3,202	20,534	17,576	2,025	19,681	
5		Ferozepore .. ..	1,021,651	267	20	30,702	20,074	50,776	2,539	35,457	28,582	4,605	33,599	
			Total .. ..	4,187,749	..	73	159,666	109,009	268,675	3,680	140,959	111,203	19,098	131,919
			(b) Municipal towns.											
1			Dharmsala .. ..	3,976	..	..	162	36	198	..	60	50	9	60
2			Hoshiarpur .. ..	26,730	..	1	429	308	737	737	615	497	117	614
3			Tanda Umar .. ..	9,510	..	..	202	113	315	..	251	196	42	239
4			Jullundur .. ..	73,141	..	3	2,584	2,164	4,748	1,583	2,689	2,198	230	2,487
5			Kartarpur .. ..	9,878	..	1	300	312	612	612	478	397	33	438
6			Banga ....	5,840	..	..	100	73	173	..	162	146	9	155
7			Rahon .. ..	6,692	..	..	175	123	298	..	248	189	30	219
8			Phyllaur* .. ..	5,168	..	..	399	128	527	..	207	146	49	195
9			Nurmahal .. ..	7,079	..	..	243	245	488	..	329	274	21	315
10			Nakodar* .. ..	9,584	..	..	406	154	560	..	334	291	14	309
11			Ludhiana .. ..	68,586	..	3	1,761	1,513	3,274	1,091	1,783	1,202	362	1,573
12			Jagraon .. ..	27,108	..	1	959	595	1,554	1,554	1,004	595	173	786
13			Raikot .. ..	11,810	..	1	339	205	544	544	382	358	13	371
14			Ferozepore .. ..	32,653	..	3	1,180	732	1,912	637	1,494	1,072	169	1,375
15			Zira .. ..	5,318	..	1	389	161	550	550	296	224	54	281
16			Muktsar .. ..	14,839	..	1	447	262	709	709	576	448	115	572
17			Fazilka .. ..	18,463	..	1	856	396	1,252	1,252	783	653	54	716
18			Moga .. ..	17,581	..	1	749	624	1,373	1,373	530	396	65	469
19			Abohar .. ..	14,035	..	1	737	585	1,322	1,322	1,270	876	299	1,229
			Total of Municipal towns ..	367,991	..	18	12,417	8,729	21,146	1,175	13,491	10,208	1,858	12,403
		Total of Jullundur Division ..	4,555,740	..	91	172,083	117,738	289,821	3,185	154,450	121,411	20,956	144,322	

\*Vaccination act not in force.



vaccination.)

DEPARTMENT.

THE PUNJAB PROVINCE DURING THE YEAR 1931-32.

Unknown.	RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		Persons successfully vaccinated per 1,000 of population.	PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		AVERAGE ANNUAL NUMBER OF PERSONS SUCCESSFULLY VACCINATED DURING PREVIOUS FIVE YEARS.		AVERAGE ANNUAL NUMBER OF DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS.		Serial No.
	Total.	Successful.	Unknown.	Primary.	Re-vaccination.		Primary.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	
15	16	17	18	19	20	21	22	23	24	25	26	27	28
361	13,905	9,169	1,419	98.42	73.43	44.95	1.31	10.20	27,030	33.74	424	0.53	1
1,056	16,281	8,491	2,321	96.51	60.82	49.89	3.56	14.26	28,328	39.17	176	0.24	2
1,287	9,578	6,892	1,377	98.57	84.04	44.66	5.12	14.38	43,215	63.47	77	0.11	3
1,441	34,509	18,771	8,675	98.84	72.66	57.65	5.43	25.14	38,614	51.08	153	0.20	4
1,479	25,973	14,093	4,969	97.00	67.10	52.76	7.18	19.13	26,062	42.12	160	0.26	5
performed by the special staff, Punjab.									..	..	1	0.07	6
5,624	100,246	57,416	18,761	97.87	70.46	49.73	4.34	18.71	163,249	45.42	991	0.28	
38	202	144	26	93.99	81.82	22.48	7.80	12.87	890	35.35	65	2.58	1
7	35	24	..	97.77	68.57	34.70	1.10	..	539	29.36	20	1.09	2
34	45	16	3	96.81	38.10	30.89	2.93	6.67	889	24.79	18	0.50	3
16	351	238	59	96.78	81.51	34.85	3.55	16.81	406	21.47	14	0.74	4
33	441	189	46	96.31	47.85	33.55	3.19	10.43	1,391	39.48	10	0.28	5
93	303	123	32	97.15	45.39	43.49	18.09	10.56	314	25.67	19	1.55	6
3	73	28	5	98.78	41.18	37.66	1.80	6.85	188	37.26	3	0.59	7
11	119	93	8	98.14	83.78	51.27	3.93	6.72	213	30.59	1	0.14	8
8	129	80	20	99.60	73.39	38.14	1.59	15.50	392	26.05	1	0.07	9
11	45	20	10	96.85	57.14	18.15	7.97	22.22	284	36.05	4	0.51	10
17	664	253	226	99.24	57.76	44.62	1.80	34.04	1,026	39.06	2	0.08	11
2	298	252	..	99.39	84.56	68.38	0.41	..	413	38.22	3	0.28	12
4	91	90	..	98.94	98.90	51.39	2.07	..	209	38.78	1	0.19	13
..	47	38	4	99.65	88.37	43.78	..	8.51	261	35.96	4	0.55	14
3	55	36	11	99.32	81.82	43.49	2.01	20.00	147	35.32	2	0.48	15
1	63	33	24	99.08	84.62	27.46	0.91	38.10	207	40.32	..	..	16
152	782	170	284	96.31	34.14	30.89	18.34	36.32	1,276	47.95	14	0.53	17
17	341	292	16	99.23	89.85	54.74	2.14	4.69	862	44.39	13	0.67	18
7	119	119	..	99.83	100.00	40.01	0.58	..	1,523	46.27	14	0.43	19
3	261	46	50	97.79	21.80	36.20	0.73	19.16	431	35.06	..	..	20
4	110	21	13	82.35	21.65	6.95	19.05	11.82	104	20.67	1	0.20	21
6	1,749	1,187	28	98.84	68.97	73.33	0.43	1.60	2,007	57.58	10	0.29	22
7	169	7	12	95.40	4.46	38.08	1.32	7.10	523	39.44	12	0.90	23
7	..	..	..	99.10	..	31.48	5.93	..	95	27.16	..	..	24
11	276	148	58	98.70	67.89	58.18	3.45	21.01	374	48.14	2	0.26	25
16	334	226	61	95.73	82.78	61.62	4.65	18.26	454	51.80	4	0.46	26
65	2,511	589	1,166	96.64	43.79	54.67	13.49	46.44	2,116	116.62	8	0.44	27
576	9,613	4,462	2,162	98.08	59.75	65.45	4.12	22.49	17,534	41.52	245	0.58	
6,200	109,859	61,878	20,923	97.89	69.58	48.89	4.31	19.04	180,783	45.01	1,236	0.31	
2,333	63,439	31,692	15,263	99.88	65.78	67.99	9.44	24.06	54,845	69.00	96	0.12	1
2,015	13,011	7,803	2,420	99.51	73.68	37.55	6.35	18.60	35,047	35.19	821	0.83	2
1,339	14,896	6,638	1,904	98.27	51.09	41.14	4.70	12.78	26,642	32.88	110	0.14	3
646	21,095	5,080	4,808	98.96	31.19	43.83	3.15	22.79	23,886	42.27	132	0.23	4
1,296	15,319	7,939	3,193	98.06	65.47	40.66	36.55	20.84	35,644	34.89	274	0.27	5
7,629	127,760	59,152	27,588	98.94	58.05	45.63	5.41	21.59	176,064	42.04	1,433	0.34	
..	138	60	26	100.00	53.57	30.18	..	18.84	420	105.63	1	0.25	1
..	122	62	15	99.84	57.94	25.29	..	12.30	871	32.59	17	0.64	2
12	64	36	8	100.00	64.29	28.92	4.78	12.50	267	28.08	19	2.00	3
151	2,059	1,622	233	97.99	88.83	56.18	5.62	11.32	3,311	45.27	19	0.26	4
11	134	78	1	93.79	58.65	52.24	2.30	0.75	307	31.08	..	..	5
7	11	2	3	100.00	25.00	26.88	4.32	27.27	135	23.12	2	0.34	6
21	50	..	4	96.48	..	32.73	8.47	8.00	170	25.40	5	0.75	7
5	320	64	39	96.53	22.78	50.12	2.42	12.19	254	49.15	6	1.16	8
14	159	123	11	100.00	83.11	61.87	4.22	6.92	203	28.68	1	0.14	9
14	226	65	..	96.56	28.76	39.02	4.19	..	304	31.72	10	1.04	10
150	1,491	436	273	96.33	35.78	29.29	8.41	18.31	1,884	27.47	67	0.98	11
201	550	194	277	97.88	71.06	36.15	20.12	50.36	1,018	37.55	22	0.81	12
8	162	146	8	99.20	94.81	43.78	2.09	4.94	452	38.27	1	0.08	13
23	418	215	15	93.47	53.35	48.69	1.54	3.59	1,500	45.94	6	0.18	14
9	254	123	27	97.91	54.19	75.97	3.04	11.02	271	50.96	..	..	15
3	133	131	..	99.83	98.50	47.38	0.52	..	445	29.99	5	0.34	16
62	469	309	148	99.31	96.26	55.52	7.92	31.56	494	26.76	8	0.43	17
11	843	708	70	90.37	91.59	66.95	2.07	8.30	633	36.00	11	0.63	18
5	52	28	16	97.15	77.78	89.56	0.39	30.77	476	33.92	7	0.50	19
707	7,655	4,402	1,174	97.02	67.92	45.67	5.24	15.34	13,415	36.45	207	0.56	
8,336	135,415	63,554	28,762	98.77	59.59	45.63	5.40	21.24	189,479	41.59	1,640	0.36	



## STATEMENT No. I.—SHOWING PARTICULARS OF VACCINATION

Serial No.	Division.	(a) Districts excluding Municipal towns. (b) Municipal towns.	Population of districts (exclud- ing Municipal towns) and Municipal towns according to census of 1931.	Average population of districts per square mile.	Average number of vaccinators employed throughout the year.	TOTAL NUMBER OF PERSONS VACCINATED.			Average number of persons vac- cinated by each vaccinator.	PRIMARY VACCINATION.				
						Males.	Females.	Total.		Total.	Successful.			
											Under one year.	One year and under six years.	Total of all ages.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
		(a) Districts excluding Municipal towns.												
1	LAHORE DIVISION.	Lahore .. ..	859,109	508	18	33,974	20,619	54,593	3,033	34,131	28,728	2,670	32,085	
2		Amritsar .. ..	843,367	701	14	38,943	25,953	64,896	4,635	31,902	23,602	5,172	28,970	
3		Gurdaspur .. ..	900,175	513	16	53,900	36,991	90,891	5,681	36,107	30,909	3,053	34,347	
4		Sialkot .. ..	863,578	615	17	30,612	18,905	49,517	2,913	32,880	26,773	4,221	31,174	
5		Gujranwala .. ..	649,233	319	16	18,226	11,702	29,928	1,871	20,151	14,663	2,273	17,100	
6		Sheikhupura .. ..	691,591	303	13	32,622	18,962	51,584	3,968	25,931	20,201	2,503	22,820	
			Total .. ..	4,807,053	..	94	208,277	133,132	341,409	3,632	181,102	144,876	19,892	166,496
			(b) Municipal towns.											
1			Lahore .. ..	393,985	..	9	16,220	8,186	24,406	2,712	12,572	8,845	2,966	11,972
2			Chunian .. ..	8,269	..	..	302	208	510	510	235	187	17	207
3			Kasur .. ..	46,815	..	2	1,477	871	2,348	1,174	1,440	1,262	102	1,377
4			Khem Karan .. ..	6,898	..	..	264	131	395	..	282	210	28	255
5			Patti .. ..	12,882	..	..	231	295	526	..	511	460	31	495
6			Baghbanpura .. ..	13,805	..	..	758	219	977	..	516	432	55	487
7			Amritsar .. ..	262,995	..	5	18,181	9,211	27,392	5,478	13,682	6,966	2,333	13,439
8			Jandiala .. ..	8,888	..	1	385	322	707	707	376	307	9	316
9			Gurdaspur .. ..	12,094	..	1	611	360	971	971	477	397	53	452
10			Dina Nagar .. ..	5,114	..	..	276	176	452	..	193	138	6	144
11			Pathankot .. ..	9,763	..	..	261	250	511	..	329	251	60	328
12			Dalhousie .. ..	1,030	..	..	46	31	77	..	68	35	18	65
13			Batala .. ..	33,204	..	1	2,088	848	2,936	2,936	1,382	1,024	213	1,256
14		Dera Nanak .. ..	5,176	..	..	269	344	613	..	199	157	37	196	
15		Sialkot .. ..	82,923	..	4	3,678	3,293	6,971	1,743	3,134	2,942	188	3,132	
16		Pasrur .. ..	7,905	..	1	369	353	722	722	424	286	85	396	
17		Narowal .. ..	7,095	..	1	193	215	408	408	301	229	44	274	
18		Gujranwala .. ..	58,716	..	1	1,864	1,603	3,467	3,467	2,152	1,887	146	2,035	
19		Wazirabad .. ..	20,760	..	1	468	434	902	902	802	559	166	730	
20		Eminabad .. ..	7,329	..	1	218	107	325	325	227	161	49	223	
21		Sharakpur .. ..	5,056	..	..	126	148	274	..	269	172	58	235	
		Total of Municipal towns..	1,010,702	..	28	48,285	27,605	75,890	2,710	39,571	26,907	6,664	38,014	
		Total of Lahore Division ..	5,817,755	..	122	256,562	160,737	417,299	3,420	220,673	171,783	26,556	204,510	
		(a) Districts excluding Municipal towns.												
1	RAWALPINDI DIVISION.	Gujrat .. ..	869,092	410	14	32,188	17,110	49,298	3,521	33,083	26,165	3,952	30,454	
2		Shahpur .. ..	746,509	172	18	16,481	12,386	28,867	1,604	24,724	16,030	6,092	22,531	
3		Jhelum .. ..	507,476	194	13	27,176	12,517	39,693	3,053	19,085	14,214	2,380	17,028	
4		Rawalpindi .. ..	512,403	306	14	28,696	13,844	42,540	3,039	17,818	13,838	3,053	17,016	
5		Attock .. ..	550,438	141	9	32,079	16,556	48,635	54,024	19,190	14,220	3,833	18,185	
6		Mianwali .. ..	373,224	76	7	15,927	10,894	26,821	3,832	13,348	12,317	502	12,874	
			Total .. ..	3,559,142	..	75	152,547	83,307	235,854	3,145	127,248	96,784	19,812	118,088
			(b) Municipal towns.											
1			Gujrat .. ..	26,511	..	1	917	550	1,467	1,467	988	892	62	957
2			Jalalpur .. ..	12,507	..	..	471	231	702	..	469	336	38	386
3			Kunjah .. ..	7,152	..	..	200	169	369	..	367	320	27	349
4			Dinga .. ..	7,068	..	..	139	141	280	..	280	226	31	257
5			Sahiwal .. ..	7,762	..	1	261	158	419	419	315	185	121	308
6			Bhera .. ..	19,741	..	1	520	442	962	962	750	462	261	724
7			Miani .. ..	6,472	..	1	265	180	445	445	320	229	81	318
8			Khushab .. ..	14,194	..	1	178	208	386	386	309	225	27	261
9			Sargodha .. ..	26,761	..	1	810	1,027	1,837	1,837	1,030	713	285	1,013
10			Jhelum .. ..	17,266	..	1	1,014	863	1,877	1,877	624	457	125	604
11			Pind Dadan Khan .. ..	9,832	..	1	501	356	857	857	422	358	38	412
12			Rawalpindi .. ..	71,992	..	2	3,256	2,021	5,277	2,639	2,623	2,131	456	2,592
13			Murree .. ..	1,530	..	1	525	143	668	668	270	161	105	270
14		Pindigheb .. ..	10,506	..	1	205	422	627	627	407	349	48	407	
15		Hazro .. ..	9,155	..	1	300	200	500	500	497	258	191	489	
16		Campbellpur .. ..	7,997	..	1	297	481	778	778	257	143	106	253	
17		Mianwali .. ..	15,412	..	1	1,039	575	1,614	1,614	661	444	195	644	
18		Bhakkar .. ..	6,857	..	1	157	61	218	218	133	100	33	133	
19		Isakhel .. ..	7,515	..	..	147	134	281	..	281	136	95	232	
20		Kalabagh .. ..	8,353	..	..	227	127	354	..	261	206	38	245	
		Total of Municipal towns..	294,583	..	16	11,429	8,489	19,918	12,45	11,264	8,331	2,363	10,854	
		Total of Rawalpindi Divi- sion.	3,853,725	..	91	163,976	91,796	255,772	2,811	138,512	105,115	22,175	128,942	



## DEPARTMENT.

IN THE PUNJAB PROVINCE DURING THE YEAR 1931-32.—CONTINUED.

Unknown.	RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		Persons successfully vaccinated per 1,000 of population.	PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		AVERAGE ANNUAL NUMBER OF PERSONS SUCCESSFULLY VACCINATED DURING THE PREVIOUS FIVE YEARS.		AVERAGE ANNUAL NUMBER OF DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS.		Serial No.
	Total.	Successful.	Unknown.	Primary.	Re-vaccination.		Primary.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	
15	16	17	18	19	20	21	22	23	24	25	26	27	28
1,466	20,462	11,870	3,377	98·22	69·48	51·16	4·30	16·50	31,766	36·98	653	0·76	1
2,445	32,994	17,502	7,151	98·35	67·72	55·10	7·66	21·67	40,376	47·87	244	0·29	2
1,509	54,784	26,925	11,107	99·27	61·65	68·07	4·18	20·27	41,153	45·71	188	0·21	3
1,305	16,685	9,882	2,463	98·73	69·48	47·54	3·97	14·76	30,271	35·05	419	0·49	4
2,500	9,777	5,653	1,813	96·88	70·98	35·05	12·41	18·54	20,631	31·78	309	0·48	5
2,779	25,710	10,962	6,570	98·57	57·27	48·85	10·75	25·55	26,054	37·67	358	0·52	6
12,004	160,412	82,794	32,481	98·46	64·72	51·86	6·63	20·25	190,251	39·58	2,171	0·45	
407	11,834	4,992	3,462	98·41	59·63	43·06	3·24	29·25	20,414	51·81	219	0·56	1
16	275	26	26	94·52	10·44	28·18	6·81	9·45	379	45·83	8	0·97	2
27	908	217	24	97·45	24·55	34·05	1·88	2·64	1,577	33·69	5	0·11	3
15	113	70	5	95·50	64·81	47·12	5·32	4·42	225	32·62	4	0·58	4
13	15	6	4	99·40	54·55	38·89	2·54	26·67	335	26·01	6	0·47	5
23	461	221	96	98·78	60·55	51·29	4·46	20·82	438	31·73	8	0·58	6
147	13,710	9,457	1,513	99·29	77·54	87·06	1·07	11·04	12,994	49·41	138	0·53	7
40	331	314	4	94·05	96·02	70·88	10·64	1·21	423	47·59	4	0·45	8
23	494	206	22	99·56	43·64	54·41	4·82	4·45	634	52·42	4	0·33	9
49	259	58	52	100·00	28·02	39·50	25·39	20·08	285	55·73	1	0·20	10
1	182	116	26	100·00	74·36	45·48	0·30	14·29	377	38·62	4	0·41	11
1	9	5	1	97·01	62·50	68·17	1·47	11·11	60	58·25	..	..	12
121	1,554	644	256	99·61	49·61	57·22	8·76	16·47	1,001	30·15	37	1·11	13
1	414	231	62	98·99	65·63	82·50	0·50	14·98	275	53·13	..	..	14
1	3,837	3,632	127	99·97	97·90	81·57	0·03	3·31	5,042	60·80	15	0·18	16
25	298	137	85	99·25	64·32	67·43	5·90	28·52	429	54·27	3	0·38	16
27	107	104	..	100·00	97·20	53·28	8·97	..	461	64·98	4	0·56	17
88	1,315	777	103	98·59	64·11	47·89	4·09	7·83	2,867	48·83	67	1·14	18
66	100	52	11	99·18	58·43	37·67	8·22	11·00	701	33·77	6	0·29	19
..	98	95	1	98·24	97·94	43·39	..	1·02	169	23·06	3	0·41	20
29	5	2	..	97·92	40·00	46·88	10·78	..	123	24·32	6	1·19	21
1,120	36,319	21,362	5,880	98·86	70·18	58·75	2·83	16·19	49,209	48·69	542	0·54	
13,124	196,731	104,156	38,361	98·53	65·77	53·06	5·95	19·50	239,460	41·16	2,713	0·47	
2,291	16,219	8,093	2,855	98·90	60·56	44·35	6·93	17·60	33,107	38·09	529	0·60	1
1,865	4,148	1,914	552	98·57	53·23	32·75	7·54	13·30	23,837	31·93	373	0·50	2
1,529	20,608	11,166	4,088	96·99	67·59	55·56	8·01	19·84	24,932	49·13	119	0·23	3
737	24,722	12,513	3,875	99·62	60·02	57·63	4·14	15·67	28,864	56·33	85	0·17	4
599	29,445	21,398	2,568	97·29	79·61	71·91	3·11	8·72	23,488	42·67	138	0·25	5
378	13,476	11,595	646	99·26	90·37	65·56	2·83	4·79	20,219	54·17	41	0·11	6
7,399	108,618	66,679	14,584	98·53	70·91	51·91	5·81	13·43	154,447	43·39	1,385	0·39	
25	479	270	66	99·38	65·38	46·28	2·53	13·79	1,260	47·53	3	0·11	1
57	233	89	37	93·69	45·41	37·98	12·15	15·88	496	39·66	15	1·20	2
17	2	..	..	99·71	..	48·80	4·63	..	408	57·05	5	0·70	3
20	..	..	..	98·85	..	36·36	7·14	..	243	34·38	1	0·14	4
3	104	52	1	98·72	50·49	46·38	0·95	0·96	303	39·04	12	1·55	5
10	212	171	..	97·84	100·00	45·34	1·33	19·34	812	41·13	18	0·91	6
1	125	124	..	99·69	99·20	68·29	0·31	..	134	20·70	10	1·55	7
44	77	14	28	98·49	28·57	19·37	34·24	36·36	524	36·92	14	0·99	8
15	807	424	78	99·80	58·16	53·70	1·46	9·67	1,129	42·19	5	0·19	9
10	1,253	799	106	98·37	69·66	81·26	1·60	8·46	1,287	74·54	5	0·29	10
7	435	299	69	99·28	81·69	72·32	1·66	15·86	412	41·90	1	0·10	11
21	2,654	1,431	156	99·62	57·29	55·88	0·80	5·88	3,510	48·76	16	0·22	12
..	398	252	..	100·00	63·32	341·18	..	..	184	120·26	..	..	13
..	220	194	1	100·00	88·58	57·21	..	0·45	382	36·36	1	0·10	14
8	3	3	..	100·00	100·00	53·74	1·61	..	313	34·19	9	0·98	15
1	521	375	51	98·83	79·79	78·53	0·39	9·79	743	92·91	2	0·25	16
13	953	740	75	99·38	84·28	89·80	1·97	7·87	809	52·49	..	..	17
..	85	85	..	100·00	100·00	31·79	..	..	172	25·09	4	0·58	18
49	..	..	..	100·00	..	30·87	17·44	..	128	17·03	1	0·13	19
10	93	75	10	77·61	90·36	38·31	3·83	10·75	139	16·64	3	0·36	20
311	8,654	5,397	678	99·10	67·66	55·17	2·76	7·83	13,388	45·45	125	0·42	
7,710	117,272	72,076	15,262	98·50	70·66	52·16	5·57	13·01	167,835	43·55	1,510	0·39	



STATEMENT No. I.—SHOWING PARTICULARS OF VACCINATION

Serial No.	Division.	(a) Districts excluding Municipal towns. (b) Municipal towns.	Population of districts (exclud- ing Municipal towns) and Municipal towns according to census of 1931.	Average population of districts per square mile.	Average number of vaccinators employed throughout the year.	TOTAL NUMBER OF PERSONS VACCINATED.			Average number of persons vac- cinated by each vaccinator.	PRIMARY VACCINATION.				
						Males.	Females.	Total.		Total.	Successful.			
											Under one year.	One year and under six years.	Total of all ages.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
		(a) Districts excluding Municipal towns.												
1	MULTAN DIVISION.	Montgomery .. ..	962,114	221	23	38,800	22,686	61,486	2,673	39,321	25,643	4,500	32,122	
2		Lyallpur .. ..	1,085,346	357	18	37,700	24,370	62,070	3,448	41,614	32,145	4,333	36,872	
3		Jhang .. ..	602,857	193	11	25,851	19,788	45,639	4,149	23,967	18,037	2,683	21,766	
4		Multan .. ..	1,048,732	199	24	53,530	38,142	91,672	3,820	45,405	29,968	7,462	40,578	
5		Muzaffargarh .. ..	565,375	98	10	42,423	36,433	78,856	7,886	24,064	19,393	2,447	22,970	
6		Dera Ghazi Khna .. ..	444,758	92	14	31,423	21,879	53,302	3,807	26,936	16,448	4,974	23,519	
		Total .. ..	4,709,182	..	100	229,727	163,298	393,025	3,930	201,307	141,634	26,399	177,827	
		(b) Municipal towns.												
1		Montgomery .. ..	26,164	..	1	729	384	1,113	1,113	800	439	155	649	
2		Pakpattan .. ..	11,311	..	1	418	356	774	774	434	180	101	334	
3		Lyallpur .. ..	42,922	..	2	1,825	2113	3,938	1,969	1,048	612	429	1,044	
4		Gojra .. ..	9,779	..	1	350	194	544	544	281	234	41	279	
5		Kamalia .. ..	13,220	..	..	1,008	470	1,478	..	663	416	144	577	
6		Jhang Maghiana .. ..	36,035	..	1	967	670	1,637	1,637	1,356	813	256	1,071	
7		Chiniot .. ..	25,841	..	1	764	722	1,486	1,486	1,034	416	481	907	
8		Multan .. ..	107,366	..	4	3,397	2,494	5,891	1,964	4,196	3,263	644	4,033	
9		Shujabad .. ..	6,618	..	1	122	114	236	236	236	184	39	228	
10		Muzaffargarh .. ..	6,110	..	..	117	53	170	..	135	63	37	104	
11		Khangarh .. ..	2,863	..	..	48	39	87	..	85	76	8	84	
12		Alipur .. ..	3,931	..	..	125	76	201	..	156	127	28	156	
13		Leiah .. ..	9,578	..	..	1,548	1,050	2,598	..	337	250	64	327	
14		Karor .. ..	3,491	..	..	141	157	298	..	113	99	13	113	
15		Dera Ghazi Khan .. ..	23,468	..	1	1,270	552	1,822	1,822	936	803	105	914	
16		Jampur .. ..	9,430	..	..	295	248	543	..	272	253	11	268	
17		Dajal .. ..	6,186	..	..	328	243	571	..	283	245	28	279	
18		Rajanpur .. ..	4,510	..	..	310	216	526	..	230	177	38	230	
19		Kot Mithan .. ..	2,680	..	..	681	254	935	..	131	90	22	129	
	Total of Municipal towns ..	351,503	..	13	14,443	10,405	24,848	2,071	12,726	8,740	2,644	11,726		
	Total of Multan division ..	5,060,685	..	113	244,170	173,703	417,873	3,731	214,033	150,374	29,043	189,553		
	Total of districts and Muni- cipal staff.	23,304,597	243	507	991,696	642,353	1,634,049	3,223	871,251	661,474	119,923	801,816		
	Total of Special staff ..	..	..	17	30,000	24,859	54,859	3,227	25,130	9,579	10,620	22,533		
	Total of Cantonment staff	210,440	..	7	21,453	4,512	25,965	3,709	5,158	3,775	975	4,841		
	Total of Dispensary staff..	..	..	..	2,516	988	3,504	..	1,678	1,206	241	1,577		
	GRAND TOTAL ..	23,515,037	243	531	1,045,665	672,712	1,718,377	3,237	903,217 (a)	676,034	131,759	830,767 (b)		

(a) Difference between number of operations and number of persons<sup>s</sup>  
(b) These figures include 22,974 Primary successful vaccination of persons

SUMM

	TOTAL NUMBER OF PERSONS VACCINATED.		TOTAL NUMBER OF OPERATIONS PERFORMED.		PERCENTAGE OF SUCOESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.	
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
By District ,Cantonment and special staff (State-ment No. I).	900,933	813,940	901,539	813,940	98·44	67·49
By Dispensary staff .. ..	1,678	1,826	1,678	1,826	98·62	84·17
Total ..	902,611	815,766	903,217	815,766	98·44	67·53



DEPARTMENT.

IN THE PUNJAB PROVINCE DURING THE YEAR 1931-32—CONCLUDED.

Unknown.	RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		Persons successfully vaccinated per 1,000 of population.	PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		AVERAGE ANNUAL NUMBER OF PERSONS SUCCESSFULLY VACCINATED DURING PREVIOUS FIVE YEARS.		AVERAGE ANNUAL NUMBER OF DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS.		Serial No.
	Total.	Successful.	Unknown.	Primary.	Re-vaccination.		Primary.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	
15	16	17	18	19	20	21	22	23	24	25	26	27	28
6,246	22,165	8,803	6,472	97·12	56·10	42·54	15·88	29·20	31,271	32·50	742	0·77	1
3,733	20,456	11,380	4,417	97·34	70·95	44·46	8·97	21·59	42,771	39·41	522	0·48	2
1,869	21,709	16,149	2,979	98·50	86·22	62·89	7·80	13·72	29,245	48·51	66	0·11	3
4,446	46,267	25,334	9,942	99·07	69·74	62·85	9·79	21·49	39,161	37·34	224	0·21	4
1,091	54,839	39,823	5,771	99·99	81·16	111·06	4·53	10·52	46,229	81·77	136	0·24	5
3,339	26,430	11,059	7,793	99·67	59·34	77·75	12·40	29·49	66,149	148·73	227	0·51	6
20,724	191,866	112,548	37,374	98·47	72·85	61·66	10·29	19·48	254,826	54·11	1,917	0·41	
76	313	156	51	89·64	59·54	30·77	9·50	16·29	1,148	43·88	13	0·50	1
98	340	132	128	99·40	62·26	41·20	22·58	37·65	402	35·54	2	0·18	2
2	2,890	2,560	50	99·81	90·14	83·97	0·19	1·73	3,436	80·05	22	0·51	3
2	263	217	21	100·00	89·67	50·72	0·71	7·98	638	65·24	1	0·10	4
80	815	343	57	98·97	45·25	69·59	12·07	6·99	433	38·28	5	0·44	5
285	231	67	119	100·00	41·36	31·58	21·02	42·35	1,727	47·93	9	0·25	6
83	452	168	65	95·37	43·41	41·60	8·03	14·38	596	23·06	2	0·08	7
128	1,695	1,150	270	99·14	80·70	48·27	3·05	15·93	5,415	50·43	25	0·23	8
2	..	..	..	97·44	..	34·45	0·85	..	262	39·59	2	0·30	9
31	35	5	22	100·00	38·46	17·84	22·96	62·86	341	55·81	1	0·16	10
1	2	..	2	100·00	..	29·34	1·18	100·00	67	23·40	..	..	11
..	45	45	..	100·00	100·00	51·13	..	..	281	71·48	3	0·76	12
..	2,261	1,971	7	97·03	87·44	239·92	..	0·31	442	46·15	..	..	13
..	185	181	2	100·00	98·91	84·22	..	1·08	244	69·89	..	..	14
15	892	410	144	99·24	54·81	56·42	1·60	16·14	1,299	55·35	2	0·09	15
4	271	169	32	100·00	70·71	46·34	1·47	11·81	666	70·63	..	..	16
4	288	119	21	100·00	44·57	64·34	1·41	7·29	1,813	293·08	6	0·97	17
..	296	149	23	100·00	54·58	84·04	..	7·77	745	165·19	2	0·44	18
2	804	404	50	100·00	53·58	198·88	1·53	6·22	605	225·75	..	..	19
813	12,128	8,246	1,064	98·43	74·53	56·82	6·39	8·77	20,560	58·49	95	0·27	
21,537	203,994	120,794	38,438	98·47	72·96	61·33	10·08	18·84	275,386	54·42	2,012	0·40	
56,907	763,271	422,458	141,746	98·46	67·97	52·53	6·53	18·57	1,052,943	45·18	9,111	0·39	
2,032	29,862	12,423	5,426	97·55	50·84	..	8·09	18·17	55,829	..	..	..	
230	20,807	6,185	13,210	98·23	81·41	52·39	4·46	63·49	8,341	39·64	12	0·06	
79	1,826	1,440	127	98·62	84·17	..	4·71	6·96	2,855	..	..	..	
59,248	815,766	442,506	160,509	98·44	67·53	54·15	6·56	19·68	1,119,968	47·63	9,123	0·39	

vaccinated equal 606 which represents secondary operations. of six years and over six years of age.

ARY.

AVERAGE NUMBER OF PERSONS VACCINATED BY EACH VACCINATOR.		NUMBER OF CHILDREN SUCCESSFUL VACCINATED.		Ratios of successful vaccinations per 1,000 of population.	Total cost of the Department.	Average cost of each successful case.	REMARKS.
Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One year and under six years.				
531	3,230	674,828	131,518	54·02	Rs.      A.      P. 3,44,216 12    5	Rs. A. P. 0    4    4	
..	..	1,206	241	..	..	..	
531	3,237	676,034	131,759	54·10	3,44,216 12    5	0    4    4	



## APPENDIX TO STATEMENT No. I.

STATEMENT SHOWING THE DETAILS OF THE VACCINATION OPERATIONS PERFORMED BY THE SPECIAL AND CANTONMENT STAFFS ACCORDING TO LOCALITIES DURING THE YEAR 1931-32.

VACCINATION DURING THE YEAR 1931-32.																		
1	2	3	4	5	6						7			8		9		10
No.	Districts.	Name of localities.	Average number of vaccinators employed throughout the year.	Total number of persons vaccinated.	PRIMARY VACCINATION.						RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH RESULTS WERE KNOWN.		PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		No.
					Total.	Successful.				Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	
						Under one year.	One year and under six years.	Six years and over six years.	Total of all ages									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

THE VACCINATIONS PERFORMED BY THE SPECIAL STAFF ARE INCLUDED IN STATEMENT No. I.

1	Ambala	..	Kalsia State	..	3,203	3,160	2,385	296	2	2,683	238	157	89	10	..	..	..	1
2	Gurgaon	..	Pataudi State	..	690	689	593	49	..	642	36	1	..	1	..	..	..	2
3	Rohtak	..	Dujana State	..	1,054	965	696	168	30	894	49	89	29	23	..	..	..	3
4	Kangra	..	Mandi State	..	29,099	8,042	2,039	4,559	499	7,097	785	21,076	8,814	3,855	..	..	..	4
5			Suket State	..	2,252	2,048	1,065	801	13	1,879	155	204	99	18	..	..	..	5
6			Bilaspur State	..	577	166	104	40	1	145	17	411	190	110	..	..	..	6
7			Nalagrah State	..	784	784	443	237	3	683	92	..	..	..	..	..	..	7
8	Simla	..	Baghat State	..	1,166	431	174	204	27	405	24	735	236	237	..	..	..	8
9			Koti Kiar State	..	302	295	12	163	93	268	27	7	..	7	..	..	..	9
10			Theog State	..	666	635	1	181	370	552	78	31	7	11	..	..	..	10
11			Kumharsain State	..	1,368	1,294	44	860	320	1,224	50	74	8	17	..	..	..	11
12			Sangri State	..	254	246	2	160	69	231	15	8	1	2	..	..	..	12
13			Ghund State	..	38	38	..	20	16	36	1	..	..	..	..	..	..	13
14			Jubbhal State	..	143	28	..	5	13	18	6	115	15	23	..	..	..	14
15			Bhajji State	..	317	312	82	120	11	213	97	5	1	3	..	..	..	15
16			Kuthar State	..	995	157	70	78	2	150	6	838	128	97	..	..	..	16
17			Beja State	..	206	41	8	26	..	34	6	165	29	31	..	..	..	17
18			Mehlog State	..	1,059	403	169	203	..	372	28	656	269	50	..	..	..	18
19			Bahgal State	..	2,024	864	307	446	17	770	88	1,160	422	163	..	..	..	19
20			Simla Tahsil (Hlaqa Bahrauli).	..	649	76	57	18	1	76	..	573	235	201	..	..	..	20
21			Tahsil Kotkhai	..	564	282	7	204	56	267	12	282	68	48	..	..	..	21
22			Tahsil Kotkhai (Hlaqa Kotgarh).	..	212	210	108	72	23	203	7	2	..	..	..	..	..	22
23			Mangat State	..	220	16	..	13	3	16	..	204	82	59	..	..	..	23
24			Kunihar State	..	322	78	16	36	2	54	5	244	42	37	..	..	..	24
25			Dhami State	..	548	231	66	98	17	181	37	317	43	60	..	..	..	25
26			Khaneti State	..	140	138	3	111	23	137	1	2	..	1	..	..	..	26
27	Gurdaspur	..	Pathankot Town	..	258	51	40	9	..	49	2	207	99	7	..	..	..	27
28	Dera Ghazi Khan.	..	Political Area	..	5,450	3,419	1,080	1,420	723	3,223	170	2,031	1,390	313	..	..	..	28
29	Rawalpindi	..	Murree Cantonment.	..	299	31	8	23	..	31	..	268	127	47	..	..	..	29
Total			..	17	54,859	25,130	9,579	10,620	2,334	22,533	2,032	29,862	12,423	5,426	97.55	50.84	8.09	18.17

THE VACCINATIONS IN CANTONMENTS WHICH ENTERTAIN THEIR OWN VACCINATORS ARE SHOWN SEPARATELY IN STATEMENT No. I.

THE VACCINATIONS IN CANTONMENTS WHICH ENTERTAINTHEIR OWN VACCINATORS ARE SHOWN SEPARATELY IN STATEMENT No. I.																			
1	Ambala	..	Ambala	..	1	1,485	1,414	1,232	163	3	1,398	2	71	42	4	..	..	..	1
2	Kangra	..	Dharamsala	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
3	Jullundur	..	Jullundur	..	1	275	161	121	32	3	156	5	114	61	28	..	..	..	3
4	Ferozepore	..	Ferozepore	..	1	589	578	444	112	4	560	..	11	5	2	..	..	..	4
5	Lahore	..	Lahore	..	1	14,401	1,065	544	284	38	866	157	13,336	206	12,690	..	..	..	5
6	Amritsar	..	Amritsar*	..	..	24	22	16	6	..	22	..	2	2	..	..	..	..	6
7	Sialkot	..	Sialkot	..	1	2,318	222	169	43	7	219	3	2,096	1,622	240	..	..	..	7
8	Jhelum	..	Jhelum*	..	..	309	1	1	..	..	1	..	308	152	75	..	..	..	8
9	Rawalpindi	..	Rawalpindi	..	1	5,716	1,475	1,144	252	21	1,417	46	4,241	3,679	130	..	..	..	9
10	Multan	..	Multan	..	1	196	90	64	11	..	75	15	106	63	25	..	..	..	10
11	Ambala	..	Kasauli*	..	..	459	46	16	25	5	46	..	413	257	16	..	..	..	11
12	Simla	..	Sabathu*	..	..	28	16	13	3	..	16	..	12	12	..	..	..	..	12
13			Dagshai*	..	..	95	64	9	42	10	61	2	31	18	..	..	..	..	13
14			Solan*	..	..	70	4	2	2	..	4	..	66	66	..	..	..	..	..
Total					7	25,065	5,158	3,775	975	91	4,841	230	20,807	6,185	13,210	98.23	81.41	4.46	63.49

\*Performed by Medical Staff.



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A—VACCINE DEPARTMENT.

STATEMENT No. II.—SHOWING THE COST OF THE DEPARTMENT IN THE PUNJAB  
PROVINCE DURING THE YEAR 1931-32.

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STATEMENT No. II.—SHOWING THE COST OF THE DEPARTMENT IN THE

1	2	3	4								
No.	Districts.	Super- vising Officers.	EXPENDITURE.								
			Pay.	Super- inten- dents of Vacci- nation.	Pay.	Vaccina- tors.	Pay.	Peons, etc.	Pay.	Total pay of establishment.	Travelling allowances.
			Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.
1	2	3	4	5	6	7	8	9	10	11	12
1	Hissar .. ..	..	..	1	635 13 0	15	6,522 4 0	2	112 11 0	7,270 12 0	354 14 0
2	Rohtak .. ..	..	..	1	833 6 0	16	5,476 11 0	..	..	6,310 1 0	307 8 6
3	Gurgaon .. ..	..	..	1	600 1 0	20	5,598 6 0	5	446 0 0	6,644 7 0	376 12 6
4	Karnal .. ..	..	..	1	1,495 1 0	18	6,847 8 0	3	139 0 0	8,481 9 0	489 2 0
5	Ambala .. ..	..	..	1	677 3 0	20	6,149 1 0	4	343 3 0	7,169 7 0	434 14 6
6	Simla .. ..	..	..	..	..	2	690 0 0	1	192 0 0	882 0 0	..
7	Kangra .. ..	..	..	1	943 7 0	13	4,545 6 0	..	..	5,488 13 0	491 14 6
8	Hoshiarpur ..	..	..	1	593 11 0	14	3,824 13 0	..	..	4,418 8 0	240 0 0
9	Jullundur ..	..	..	1	518 8 0	19	6,197 2 1	2	149 0 0	6,864 10 1	323 10 0
10	Ludhiana ..	..	..	1	1,020 0 0	18	5,944 8 3	4	673 0 0	7,637 8 3	500 0 0
11	Ferozepore ..	..	..	1	546 0 0	29	9,057 15 3	3	239 0 0	9,842 15 3	828 13 0
12	Lahore .. ..	..	..	2	1,209 8 0	30	7,868 11 0	3	606 0 0	9,684 3 0	1,112 11 6
13	Amritsar ..	..	..	2	1,453 5 0	20	7,186 15 0	8	1,982 0 0	10,622 4 0	775 10 6
14	Gurdaspur ..	..	..	1	994 8 0	18	5,994 14 3	2	160 0 0	7,149 6 3	574 15 0
15	Sialkot .. ..	..	..	3	1,383 5 0	24	5,781 10 6	3	460 0 0	7,624 15 6	468 10 0
16	Gujranwala ..	..	..	1	654 8 0	19	5,226 7 0	2	267 0 0	6,147 15 0	1,002 11 0
17	Sheikhupura ..	..	..	1	920 8 0	13	3,448 0 0	..	..	4,368 8 0	423 4 6
18	Gujrat .. ..	..	..	1	540 0 0	15	5,982 12 0	..	..	6,522 12 0	515 0 0
19	Shahpur .. ..	..	..	2	628 8 0	23	5,251 9 0	1	76 12 0	5,956 13 0	315 12 0
20	Jhelum .. ..	..	..	1	3,880 0 0	15	3,363 1 0	1	569 11 4	7,812 12 4	578 0 0
21	Rawalpindi..	..	..	1	684 0 0	18	6,272 3 0	3	384 0 0	7,340 3 0	575 8 0
22	Attock .. ..	..	..	1	479 14 0	12	3,047 9 0	2	108 0 0	3,635 7 0	880 2 0
23	Mianwali .. ..	..	..	1	1,055 6 0	9	2,315 7 0	..	..	3,370 13 0	555 6 0
24	Montgomery ..	..	..	5	2,508 0 0	25	5,893 1 0	1	226 0 0	8,627 1 0	831 4 0
25	Lyallpur .. ..	..	..	1	660 0 0	21	9,256 0 0	2	423 0 0	10,339 0 0	899 0 0
26	Jhang .. ..	..	..	1	436 0 0	13	3,600 2 0	2	124 4 0	4,160 6 0	424 3 0
27	Multan .. ..	..	..	2	1,126 11 0	30	6,911 6 0	8	715 8 0	8,753 9 0	938 7 0
28	Muzaffargarh ..	..	..	1	684 0 0	10	3,362 6 0	..	..	4,046 6 0	390 14 0
29	Dera Ghazi Khan ..	..	..	1	960 0 0	15	4,686 6 0	1	66 0 0	5,712 6 0	300 0 0
	Total .. ..	..	..	37	28,121 3 0	514	1,56,302 2 4	63	8,462 1 4	1,92,885 6 8	15,908 13 0
	Special Staff, Punjab ..	(b) 1	17,994 3 0	2	2,212 7 0	15	5,356 12 0	2	384 8 0	(d) 27,961 10 0	1,419 0 0
	Vaccine Institute ..	(c) 1	12,426 0 0	..	..	(e) 8	3,991 14 0	3	846 3 0	(a) 21,725 1 0	1,692 3 0
	Total .. ..	2	30,420 3 0	2	2,212 7 0	23	9,348 10 0	5	1,230 11 0	49,686 11 0	3,111 3 0
	GRAND TOTAL ..	2	30,420 3 0	39	30,333 10 0	537	1,65,650 12 4	68	9,692 12 4	2,42,572 1 8	19,020 0 0

Average cost is calculated on the total number of successful vaccinations and re-vaccinations

(a) North-Western Railway  
(b) Assistant Director of  
(c) Superintendent, Punjab.  
(d) Including Rs. 6,474-12-0  
(e) Including 2 Laboratory.



DEPARTMENT.  
 PUNJAB PROVINCE DURING THE YEAR 1931-32.

5								6	7	8
PAID FROM								Number of successful vaccinations and re-vaccinations.	Average cost of each successful case.	No.
Contingencies.	Total cost.	Imperial Funds.	Provincial Funds.	Local Funds.	Municipal Funds.	Cantonment Funds.	Total.			
13	14	15	16	17	18	19	20	21	22	23
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	
1,769 2 0	9,394 12 0	..	..	7,391 3 6	2,003 8 6	..	9,394 12 0	38,976	0 3 10	1
2,636 4 1	9,253 13 7	..	..	7,413 1 7	1,840 12 0	..	9,253 13 7	39,060	0 3 9	2
1,476 14 9	8,498 1 9	..	..	7,007 13 0	1,490 4 9	..	8,498 1 9	33,245	0 4 0	3
1,340 7 3	10,311 2 3	..	138 11 0	7,978 7 3	2,194 0 0	..	10,311 2 3	47,281	0 3 6	4
2,180 6 0	9,784 11 0	..	213 2 0	7,576 4 6	1,274 8 6	720 12 0	9,784 11 0	38,556	0 4 0	5
300 0 0	1,182 0 0	..	..	..	1,182 0 0	..	1,182 0 0	1,169	1 3 0	6
3,706 14 0	9,687 9 0	..	..	9,603 9 0	84 0 0	..	9,687 9 0	54,160	0 2 10	7
1,785 0 0	6,443 8 0	..	..	6,378 8 0	65 0 0	..	6,443 8 0	38,346	0 2 8	8
1,838 7 0	9,026 11 1	..	..	6,844 5 0	2,173 6 1	9 0 0	9,026 11 1	39,626	0 3 8	9
1,652 14 3	9,790 6 6	..	..	7,018 0 0	2,772 6 6	..	9,790 6 6	28,267	0 5 6	10
2,275 10 10	12,947 7 1	..	..	9,953 2 10	2,787 4 3	207 0 0	12,947 7 1	48,259	0 4 3	11
5,035 9 7	15,832 7 7	..	..	7,700 4 4	7,513 4 6	618 14 9	15,832 7 7	65,352	0 3 11	12
4,742 5 9	16,140 4 3	..	664 2 0	9,626 1 3	5,850 1 0	..	16,140 4 3	70,022	0 3 8	13
2,614 0 10	10,338 6 1	..	55 0 0	9,207 6 10	1,075 15 3	..	10,338 6 1	64,973	0 2 7	14
2,185 2 0	10,278 11 6	..	..	7,793 12 6	2,288 1 0	196 14 0	10,278 11 6	50,572	0 3 3	15
2,038 12 0	9,189 6 0	..	..	6,866 4 0	2,323 2 0	..	9,189 6 0	26,665	0 5 6	16
1,218 11 9	6,010 7 9	..	..	5,014 13 9	995 10 0	..	6,010 7 9	34,019	0 2 10	17
1,337 0 0	8,374 12 0	..	..	7,812 0 0	562 12 0	..	8,374 12 0	40,855	0 3 3	18
1,683 2 9	7,955 11 9	..	..	6,428 11 0	1,527 0 9	..	7,955 11 9	27,854	0 4 7	19
1,487 5 0	9,878 1 4	..	1 0 0	9,166 1 0	711 0 4	..	9,878 1 4	30,461	0 3 5	20
2,316 10 6	10,232 5 6	..	..	7,625 14 6	1,506 0 0	1,100 7 0	10,232 5 6	39,170	0 4 2	21
1,775 7 0	6,291 0 0	..	..	5,894 0 0	397 0 0	..	6,291 0 0	41,304	0 2 5	22
591 6 0	4,517 9 0	..	161 4 0	3,963 7 0	388 14 0	(a) 4 0 0	4,517 9 0	26,623	0 2 9	23
3,750 3 1	13,208 8 1	..	..	11,963 14 10	1,244 9 3	..	13,208 8 1	42,196	0 5 0	24
3,267 0 0	14,505 0 0	..	..	11,540 0 0	2,965 0 0	..	14,505 0 0	53,272	0 4 4	25
5,168 7 0	9,753 0 0	..	..	9,080 12 0	672 4 0	..	9,753 0 0	40,128	0 3 11	26
3,669 12 9	13,361 12 9	..	87 8 0	10,421 14 9	2,648 6 0	204 0 0	13,361 12 9	71,461	0 3 0	27
1,617 12 0	6,055 0 0	..	..	5,940 3 0	114 13 0	..	6,055 0 0	65,779	0 1 6	28
2,784 15 1	8,797 5 1	..	255 0 0	7,491 8 3	1,050 12 10	..	8,797 5 1	37,649	0 3 9	29
68,245 11 3	2,77,039 14 11	..	1,575 11 0	2,20,701 7 8	51,701 12 6	3,060 15 9	2,77,039 14 11	12,35,300	0 3 7	
520 11 0	29,901 5 0	..	29,901 5 0	..	..	..	29,901 5 0	34,956	0 13 8	
13,858 4 6	37,275 8 6	..	37,275 8 6	..	..	..	37,275 8 6	..	..	
14,378 15 6	67,176 13 6	..	67,176 13 6	..	..	..	67,176 13 6	34,956	.	
82,624 10 9	3,44,216 12 5	..	68,752 8 6	2,20,701 7 8	51,701 12 6	3,060 15 9	3,44,216 12 5	12,70,256	0 4 4	

performed by the District, Municipal, Special and Cantonment Staff,—vide Statement No. I  
 funds.  
 Public Heath, Punjab (Technical) Vaccination.  
 Vaccine Institute.  
 on account of pay of 6 clerks.  
 Assistants and 1 Veterinary Assistant.



COMPARATIVE STATEMENT No. III.—SHOWING THE NUMBER OF PERSONS PRIMARILY VACCINATED AND THE NUMBER OF THOSE PERSONS WHO WERE SUCCESSFULLY VACCINATED  
IN THE PUNJAB IN EACH OF THE UNDERMENTIONED OFFICIAL YEARS.

PERSONS PRIMARILY VACCINATED.

ESTABLISHMENT.	Average total number.	1867 to 1921.		1922.		1923.		1924.		1925.		1926.		1927.		1928.		1929.		1930.		1931.		1932.	
		Average number successfully vacci- nated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.
Government .. .. .	..	102,276	95,948	21,834	17,634	22,145	17,217	28,648	24,633	26,184	23,987	35,201	31,475	17,063	15,240	16,617	14,597	33,259	30,177	23,206	21,411	22,019	19,155	25,130	22,533
District, Municipal and Cantonment Staff		426,043	401,912	602,081	557,660	625,957	570,328	644,735	597,630	643,867	597,402	708,116	636,195	701,513	640,254	746,488	688,803	823,812	751,959	844,662	783,379	842,045	777,165	876,409	806,657
Indian States .. .. .	..	1,601	1,246	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dispensaries .. .. .	..	14,272	11,142	1,164	1,064	951	841	820	723	589	573	3,845	3,473	1,752	1,542	1,989	1,769	1,912	1,826	1,680	1,571	1,711	1,557	1,678	1,577
Political Staff (Dera Ghazi Khan) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,360	1,260	2,593	2,458	..	..
Total .. .. .	..	544,192	510,248	625,079	576,358	649,053	588,386	674,203	622,986	670,640	621,962	747,162	671,143	720,328	657,036	765,094	705,169	858,983	783,962	870,908	807,621	868,368	800,335	903,217	830,767

YEAR ENDING 31ST MARCH.

ESTABLISHMENT.	Average total number.	1867 to 1921.		1922.		1923.		1924.		1925.		1926.		1927.		1928.		1929.		1930.		1931.		1932.	
		Average number successfully vacci- nated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.
Government .. .. .	..	102,276	95,948	21,834	17,634	22,145	17,217	28,648	24,633	26,184	23,987	35,201	31,475	17,063	15,240	16,617	14,597	33,259	30,177	23,206	21,411	22,019	19,155	25,130	22,533
District, Municipal and Cantonment Staff		426,043	401,912	602,081	557,660	625,957	570,328	644,735	597,630	643,867	597,402	708,116	636,195	701,513	640,254	746,488	688,803	823,812	751,959	844,662	783,379	842,045	777,165	876,409	806,657
Indian States .. .. .	..	1,601	1,246	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dispensaries .. .. .	..	14,272	11,142	1,164	1,064	951	841	820	723	589	573	3,845	3,473	1,752	1,542	1,989	1,769	1,912	1,826	1,680	1,571	1,711	1,557	1,678	1,577
Political Staff (Dera Ghazi Khan) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,360	1,260	2,593	2,458	..	..
Total .. .. .	..	544,192	510,248	625,079	576,358	649,053	588,386	674,203	622,986	670,640	621,962	747,162	671,143	720,328	657,036	765,094	705,169	858,983	783,962	870,908	807,621	868,368	800,335	903,217	830,767

NOTE.—The figures from 1867 to 1902 are taken from Annual Vaccination Reports of the Province as constituted during that period.



STATEMENT No. IV—SHOWING TOTAL NUMBER OF PRIMARY AND RE-VACCINATIONS PERFORMED AND NUMBER INSPECTED BY CIVIL SURGEONS, DISTRICT HEALTH OFFICERS AND SUPERINTENDENTS OF VACCINATION OR OTHER INSPECTING OFFICERS, THE PERCENTAGES OF THOSE INSPECTED, TOGETHER WITH THE PERCENTAGES OF CASES FOUND SUCCESSFUL BY THEM, AS CONTRASTED WITH PERCENTAGES REPORTED BY THE VACCINATORS IN EACH DISTRICT OF THE PUNJAB DURING THE YEAR 1931-32.

No.	DISTRICTS.	TOTAL NUMBER INSPECTED				PERCENTAGE OF INSPECTIONS TO TOTAL NUMBER VACCINATED				PERCENTAGE OF CASES FOUND SUCCESSFUL TO TOTAL NUMBER INSPECTED.				PERCENTAGE OF SUCCESS REPORTED BY VACCINATORS.		No.		
		By District Health Officers, Civil Surgeons and Medical Officers of Health.		By Superintendents of Vaccination.		By District Health Officers, Civil Surgeons and Medical Officers of Health.		By Superintendents of Vaccination.		By District Health Officers, Civil Surgeons and Medical Officers of Health.		By Superintendents of Vaccination.		Primary.	Re-vacci-nation.			
		Primary.	Re-vacci-nation.	Primary.	Re-vacci-nation.	Primary.	Re-vacci-nation.	Primary.	Re-vacci-nation.	Primary.	Re-vacci-nation.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Hissar	30,505	14,560	2,597	1,532	14,207	5,370	8,51	10,52	46,57	36,88	85,98	42,10	93,72	60,00	98,25	73,60	1
2	Rohtak	32,179	17,391	10,933	6,648	24,893	11,764	33,98	38,23	77,36	67,64	97,19	59,64	97,32	55,41	96,68	60,37	2
3	Gurgaon	27,749	10,801	1,671	225	2,481	547	6,02	2,08	8,94	5,06	97,19	79,56	97,50	76,05	98,63	82,96	3
4	Karnal	29,798	36,122	7,513	5,113	15,413	12,571	25,21	14,15	51,72	34,81	98,61	45,62	98,68	45,43	98,77	71,66	4
5	Ambala	24,845	28,975	2,124	847	5,325	2,369	8,55	2,92	21,43	8,18	98,06	66,71	93,00	57,87	97,10	67,00	5
6	Simla ..	482	2,511	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
7	Kangra	24,767	63,577	1,474	481	13,899	31,304	5,95	0,76	56,12	49,24	97,69	58,00	98,58	58,82	99,88	65,71	7
8	Hoshiarpur	32,619	13,197	6,319	1,461	4,295	1,350	19,37	11,07	13,17	10,23	97,59	63,79	100,00	88,89	99,52	73,47	8
9	Jullundur	33,133	18,069	5,112	2,011	4,876	885	15,43	11,13	14,72	4,90	97,46	83,19	97,90	60,22	98,16	54,87	9
10	Ludhiana	23,742	23,310	6,312	5,870	14,520	11,527	26,59	25,18	61,16	49,45	99,36	25,55	99,09	29,20	98,74	32,66	10
11	Ferozepore	41,169	17,686	10,905	2,399	21,428	7,485	26,49	13,56	52,05	42,32	99,89	47,89	97,53	33,21	98,19	18,90	11
12	Lahore	50,752	47,404	12,983	7,576	42,590	20,965	25,58	15,98	83,92	44,23	98,62	38,85	99,49	60,55	98,24	64,28	12
13	Amritsar	45,987	47,053	8,159	6,766	13,957	10,386	17,74	14,38	30,35	22,07	99,50	59,07	98,12	53,99	98,61	71,08	13
14	Gurdaspur	38,900	57,752	2,338	3,202	6,449	8,610	6,01	5,55	16,58	14,90	96,15	64,92	98,42	47,92	99,29	61,05	14
15	Sialkot	37,180	23,305	2,101	753	11,539	3,251	5,65	3,23	31,04	13,95	98,00	77,29	98,23	75,39	98,86	75,36	15
16	Gujranwala	23,683	11,789	1,711	604	7,711	1,804	7,22	5,12	32,56	15,30	85,45	51,16	75,84	44,84	97,14	70,21	16
17	Sheikhpura	26,217	25,735	2,696	1,246	6,700	5,040	10,28	4,84	25,55	19,58	96,11	54,57	95,66	47,72	98,56	57,27	17
18	Gujrat	35,183	16,933	6,371	2,340	24,839	7,740	18,11	13,82	70,59	45,71	99,65	69,49	99,64	65,48	98,86	60,48	18
19	Shahpur	27,700	5,675	2,673	695	2,985	465	9,65	12,25	10,78	8,19	98,36	64,60	92,43	50,97	98,61	56,07	19
20	Jhelum	20,132	22,604	2,173	613	6,392	4,521	10,79	2,71	31,75	20,00	94,06	77,81	98,01	57,02	97,09	68,01	20
21	Rawalpindi	22,224	32,055	3,238	4,240	7,671	11,149	14,57	13,23	34,51	34,78	98,95	83,56	99,26	58,75	99,62	59,78	21
22	Attock..	20,351	30,189	5,449	9,742	10,998	15,481	26,78	32,27	54,04	51,21	99,08	87,76	99,04	62,92	97,93	79,69	22
23	Mianwali	14,717	14,616	1,696	11	8,286	3,344	11,52	0,07	56,30	22,88	99,82	100,00	98,84	84,06	99,26	90,05	23
24	Montgomery	40,602	23,313	904	1,074	15,819	4,710	2,23	4,61	38,96	20,20	89,60	42,83	96,12	54,39	96,98	56,23	24
25	Lyallpur	43,606	24,435	7,423	4,354	27,326	11,733	17,02	17,82	62,67	48,02	98,46	60,45	98,97	57,34	97,44	72,94	25
26	Jhang	23,617	21,024	1,207	650	16,959	11,583	5,11	3,09	71,81	55,09	97,76	65,38	98,97	65,73	98,44	84,98	26
27	Multan	49,837	47,962	7,758	7,024	31,212	30,543	15,57	14,64	62,63	63,68	97,54	50,19	98,05	49,36	99,07	70,16	27
28	Muzaffargarh	24,865	57,717	1,754	5,527	9,467	21,742	7,05	9,58	38,07	37,67	98,12	75,12	99,78	87,26	99,95	81,50	28
29	Dera Ghazi Khan	28,788	28,981	5,010	9,574	12,190	14,541	17,40	33,03	42,34	50,17	96,40	32,79	98,56	57,22	99,67	58,85	29
	Special staff	24,997	29,862	252	1	10,881	5,597	1,01	..	43,53	18,74	95,63	..	..	42,65	..	..	
	Assistant Director of Public Health, Ambala Circle.	..	..	3,560	598	..	..	..	..	..	..	94,72	66,89	..	..	..	..	
	Assistant Director of Public Health, Rawalpindi Circle.	..	..	1,856	219	..	..	..	..	..	..	94,94	63,93	..	..	..	..	
	Assistant Director of Public Health, Lahore Circle.	..	..	2,859	834	..	..	..	..	..	..	95,35	57,55	..	..	..	..	
	Total	900,326	814,603	139,131	94,230	395,308	278,377	15,45	11,57	43,97	34,17	97,61	57,33	97,76	57,47	98,44	67,53	



## STATEMENT No. V.

STATEMENT SHOWING THE ANNUAL NUMBER OF SUCCESSFUL VACINATIONS AND THE ANNUAL RATIO OF DEATHS FROM SMALL-POX PER 1,000 OF POPULATION IN EACH DISTRICT OF THE PUNJAB FOR FIVE YEARS ENDING 1931-32.

Number.	District.	1927-28.		1923-29.		1929-30.		1930-31.		1931-32.		Number.
		Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Hissar .. ..	23,656	0.35	32,449	1.07	30,519	0.64	38,300	0.56	38,976	0.29	1
2	Rohtak .. ..	26,876	0.20	30,723	0.40	39,748	0.30	36,661	0.35	39,060	0.04	2
3	Gurgaon .. ..	58,998	0.01	35,790	0.01	40,487	0.26	49,751	0.29	33,245	0.01	3
4	Karnal .. ..	38,774	0.32	46,483	0.06	49,975	0.32	43,381	0.20	47,281	0.03	4
5	Ambala .. ..	22,694	0.29	28,218	0.09	37,203	0.23	36,098	0.27	36,813	0.06	5
6	Simla .. ..	1,891	0.20	2,471	0.27	2,395	0.34	895	0.17	992	0.03	6
7	Kangra .. ..	57,896	0.18	59,837	0.14	51,433	0.05	51,375	0.04	54,160	0.01	7
8	Hoshiarpur ..	36,067	1.03	41,041	0.95	38,733	0.76	33,434	0.61	38,346	0.16	8
9	Jullundur ..	29,605	0.13	31,751	0.14	34,123	0.20	33,675	0.11	39,409	0.04	9
10	Ludhiana ..	22,520	0.22	28,632	0.15	33,188	0.72	28,777	0.26	28,267	0.03	10
11	Ferozepore ..	33,019	0.12	41,764	0.24	44,188	0.32	46,995	0.53	47,694	0.17	11
12	Lahore .. ..	45,752	0.65	52,749	1.01	64,514	0.58	59,389	0.38	64,280	0.29	12
13	Amritsar ..	51,253	0.44	55,870	0.47	58,559	0.32	64,504	0.19	69,998	0.11	13
14	Gurdaspur ..	36,488	0.29	39,900	0.24	51,183	0.21	57,588	0.12	64,973	0.06	14
15	Sialkot .. ..	35,196	0.51	34,093	0.54	37,552	0.25	46,380	0.38	48,731	0.39	15
16	Gujranwala ..	24,746	0.93	24,689	0.89	23,219	0.29	27,175	0.17	26,665	0.11	16
17	Sheikhupura ..	28,544	1.24	24,309	0.53	24,631	0.23	31,657	0.16	34,019	0.08	17
18	Gujrat .. ..	34,416	0.59	37,672	1.03	34,945	0.61	39,097	0.40	40,855	0.29	18
19	Shahpur .. ..	27,633	0.36	31,838	0.80	24,027	0.88	21,904	0.06	27,854	0.08	19
20	Jhelum .. ..	21,488	0.20	21,344	0.16	33,939	0.42	36,894	0.23	30,308	0.10	20
21	Rawalpindi ..	26,823	0.15	34,723	0.24	28,763	0.30	46,299	0.05	34,074	0.01	21
22	Attock .. ..	24,297	0.37	24,000	0.18	25,378	0.38	28,648	0.07	41,304	0.06	22
23	Mianwali ..	21,485	0.08	21,305	0.04	20,245	0.06	24,169	0.06	26,623	0.02	23
24	Montgomery ..	32,065	1.03	34,235	0.59	33,201	0.35	36,766	0.27	42,196	0.15	24
25	Lyallpur ..	51,317	0.86	49,434	0.44	40,744	0.21	44,448	0.07	53,272	0.09	25
26	Jhang .. ..	32,490	0.07	33,688	0.15	32,875	0.10	33,692	0.07	40,128	0.09	26
27	Multan .. ..	46,705	0.22	44,161	0.13	39,901	0.09	54,886	0.26	71,323	0.15	27
28	Muzaffargarh ..	44,088	0.23	43,530	0.03	47,964	0.03	58,751	0.02	65,779	0.10	28
29	Dera Ghazi Khan ..	32,408	0.60	70,803	0.09	103,364	0.04	107,677	0.11	37,649	0.24	29
	Total .. ..	969,190	0.43	1,057,507	0.42	1,126,996	0.34	1,219,266	0.24	1,224,274	0.13	
	Special Staff ..	31,761	..	78,107	..	55,172	..	44,374	..	34,956	..	
	Cantonment Staff ..	5,804	0.13	6,446	0.05	9,100	0.12	15,757	0.05	11,026	0.09	
	Dispensary Staff ..	2,751	..	3,114	..	3,187	..	2,721	..	3,017	..	
	Political Staff, Dera Ghazi Khan ..	..	..	..	..	..	..	3,951	..	..	..	
	GRAND TOTAL ..	1,009,506	0.43	1,145,174	0.42	1,194,455	0.34	1,286,069	0.24	1,273,273	0.13	







